WORLD'S URBAN SUSTAINABLE POLICIES AND SUSTAINABILITY IN ALGERIA

سياسات الاستدامة العمرانية العالمية والاستدامة في الجزائر

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RESUME

Although the political structure of Algeria is quite different from western countries, and although Algeria's budget is mainly from oil revenues and thus is not sustainable as western countries, all countries shared relatively common failures regarding environmental sustainability. This paper argues that failure to achieve sustainability will continue in all countries because of similarities of several phenomena regardless of political diversity. Phenomena such as: 1) the ambiguity of defining environmental, economic and social sustainability; 2) the impossibility of having the power or the means to implement agreements, rules or regulations to achieve sustainable environments; 3) the equilibrium between development and sustainability is not yet found economically; 4) conflict of interests between generations on the one hand, and between developed and less develop countries on the other, were never solved except in written formats or agreements that were not often applied. Thus, all attempts to achieve sustainability will remain tacit unrealized potentials within current political structures.

MOTS CLES: Sustainability, Urban sustainability, The Current Political Structures, Ambiguities of Sustainability, Conflict of Interests, Algeria.

ملخص

على الرغم من أن الهيكلة السياسية للاستدامة للجزائر تختلف نسبيا مقارنة بالسياسات الغربية، وعلى الرغم من أن ميزانية الجزائر تعتمد أساسا على المداخيل النفطية، لذا فإنها غير مستدامة كالبلدان الغربية. فكل الدول تشترك نسبيا في الفشل العام فيما يخص الاستدامة البيئية، وهذه الورقة تؤكد على استمرار الفشل العام في تحقيق الاستدامة لأن هناك تشابه في الظواهر على الرغم من اختلاف السياسات، ومن هذه الظواهر: 1) الغموض في تعريف الاستدامة البيئية والاقتصادية والاجتماعية. 2) استحالة امتلاك القوة او الوسائل لتطبيق الاتفاقيات والقوانين والتنظيمات لتحقيق الاستدامة البيئية. 3) إلى الآن لم يتم تحقيق التوازن بين التنمية والاستدامة اقتصاديا .4) تضارب المصالح بين الأجيال من جهة، وبين الدول المتقدمة والنامية من جهة أخرى والتي لم تحل رغم الاتفاقيات والتي لم يتم تطبيقها أصلا. لذا فإن كل محاولات الاستدامة ستبقى دون إمكانية التطبيق على ارض الواقع في ظل المنظومة السياسية الحالية.

الكلمات المفتاحية: الاستدامة، الاستدامة العمرانية، المنظومة السياسية الحالية، غموض الاستدامة، تضارب المصالح، الجزائر.

1 INTRODUCTION

Researchers have developed a huge number of methods and innovations to deal with sustainability. As Robinson stated (2004,p 342): "On the biophysical front, the past decade has witnessed an explosive growth in concepts such as eco-efficiency, dematerialization, design for environment, industrial ecology, and biomimicry, and a much more limited set of examples in practice." Yet, such methods and innovations remained tappet and ineffective on a massive scale. In other words, we are not short of ideas about sustainability, but we are short of methods to implement those ideas on a wider scale. This means that this is a political issue and not a technical one. Researchers are, for example, hoping that sustainability is achievable through negotiations between countries of conflicting interests (Linnér & Selin 2013). In this paper, although the political structure is different between Algeria and countries of the Western Culture, I will argue that it is impossible to achieve sustainability in Algeria because of similarities in world political structure. A major similarity is lifestyle that consumes much goods which necessitates the development of theories for economic developments. Yet, theories of economic developments are facing challenges from those calling for sustainable environments leading to the development of the term "sustainable economy" which is ambiguous (Robinson 2004, p.371). I.e. the exact interpretation and definition of sustainable development have caused eternal discussions. One of the major obstacles to achieving sustainability is its undefined concept.

As known, any investigation of the concept of sustainable development should involve three distinct, yet interrelated components: environmental, economic, and social development resulting in further ambiguities. Ambiguities started as early as the nineties. Terminology problems usually occur in the dual nature of sustainable development concept which covers development as well as sustainability (Ciegis et al. 2009). The Economic literature, for example, offers as many as 386 definitions on sustainable development. Since the nineties, various definitions emerged. From reviewing them, Ciegis for example concluded that "sustainable development may be understood as the process of economic development and structural changes helping to broaden human possibilities. Thus from such early definitions, it is possible to conclude that the relationship between the economy and societies' progress has added another layer of ambiguity. Questions are raised about the social and economic systems that guarantee support for aims such as: increase in the level of income, education, health and the quality of life. As many noted, terms relating economic growth to sustainability (such as sustainable development, sustainable growth, and sustainable consumption) contained a diverse intrinsic contradiction (Ciegis et al. 2009,29).

Logically, the minute the term ecosystem is used, the rights of future generations appears. The question is then: within the current political structure, how can such issue be dealt with if not through ethical questions? Questions such as the rights of individuals' shares of earth resources and the possible quality of life between generations of different nations. The definition of Brundtland postulates that "sustainable development is the kind of development, which satisfies the current needs without endangering the future generations to satisfy their own." But is this general unspecified definition in practice achievable? As many noted, this definition, although referred to by many, is merely a moral principle that is universally agreed upon (Ciegis et al. 2009). From such definitions, the arena is set for the notion that growth and the environment might coexist against each other, leading to further issues that have to be investigated such as: the relationships between quantity and quality of economic growth; the relationships between quality of life regarding real income, etc.

2 URBAN SUSTAINABILITY

Such ambiguity inevitably affected concepts relating to "urban sustainability". As it is known, urban settings are the product of decisions made on various levels by various actors. Each decision maker has his, her or their interests, thus if urban morphologies are the product of converging or diverging interests, then the physical morphology is indeed reflecting such interests which could contradict goals of sustainable development especially on higher levels. The definition of urban sustainability, broadly interpreted, for example, by Vojnovic (2014) as "the economic, social, and physical organization of cities and their populations in ways that accommodate the needs of current and future generations while preserving the quality of the natural environment and its ecological functions over time," is simply impossible. He argued that: "[w]hile local in nature, urban sustainability must advance global sustainability; ensuring links between interdependent ecosystem processes and conditions at different scales, from local to global." The reason he noted to explain his definition:

"There are some benefits of not having a precise definition. It allows communities to conceptualize urban sustainability depending on their particular culture, values, circumstances and unique urban stresses. Ultimately, local stresses and required sustainability initiatives will vary considerably between cities in different countries, and even cities within the same country; as evident between Naples and Milan, Hong Kong and Shenzhen, or Miami and Detroit. However, as with the broader concept of sustainability, current descriptions of urban sustainability are too vague for developing and implementing policy. Little is known about the specific role of governments in advancing urban sustainability, how to develop and implement sustainability programs, and the institutional structures, social relations and socio-economic conditions needed to foster urban sustainability" (Vojnovic 2014,pS35).

Indeed, as Robison argued (2004), sustainable development is an oxymoron. The Academic debate in environmental literature is between those arguing for values and behavioural change which requires institutional reforms, and those focussing on technical development. This raised some difficult questions such as: how do societies implement a technical vision? Who holds the power to force a technical solution? Without institutional reform, the

only method to achieve urban sustainability is by depending on peoples' faith, i.e. on the ability of humans' well which requires a new vision or new ethic or dogma. As David Suzuki stated, because we are so dependent on natural systems, ''we must learn to regard the planet as sacred''(Suzuki et al. 2010).

But how can a society convince its members to regard the planet as sacred if its economic structure leads to social stratification and poverty, if access to resources is manipulated by rulers or rules that are designed to favour the powerful? Answers to such questions might find appreciations in anti-globalization movement around the world criticising the political and economic structure of Western culture(Kleine, A., & Hauff 2009). If humans are struggling to solve questions regarding wealth distribution for example, how such fundamental questions, if dealt with, are crystalized on the practical level of urban studies?

3 CONFLICT OF INTERESTS

3.1 Conflict of Interests between Developed and Less Developed Countries

UN member states and organizers of sustainability issues met for the last four decades in several locations with diverse agendas. Conferences such as the ones held in Rio Earth Summit, the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, the UN Conference on the Human Environment (UNCHE) held in Stockholm in 1972 and the special meeting of the United Nations Environment Programme (UNEP) in Nairobi in 1982, demonstrated that all members in these large gatherings did not agree on a single meaningful binding action to stop pollutions. Successful actions were taken willingly by some states. Indeed, a new game emerged between states that might be named: "Global politics of sustainable development". This game has attracted much scholarly attention. Some of the relevant literature looks at the politics of environment and development issues from a comparatively short historical perspective (Sneddon, C., Howarth, R. B., & Norgaard 2006). Other analysts, however, have criticized the notion that countries and people share some perspectives and interests (Sachs 1993). Although the task of the UN conferences is to resolve differences in perspectives and interests, debates were marked by much controversy than agreements between the North and the South, and between industrialized and developing countries. As Linner and Selin (2013) stated: "the growing influence of major developing countries such as Brazil, South Africa, China, and India—are influencing political and economic relationships, including the allocation of responsibilities and the application of the principle of common but differentiated responsibility(Perkins 2013; UNDP 2013)". Moreover, as Fiertos (Fiertos 2011) argued: there is evidence of path dependency, "that is, one UN conference sets events moving along a certain trajectory that limits the range of subsequent actions and decisions, including the agenda and outcomes of subsequent meetings".

One of the major obvious conflicts of interest is the stress by developing countries that the Global North are sometimes using environmental concerns as an excuse to impose development restrictions on the Global South. They argue that they should be given the same opportunity for economic growth as the Global North had already enjoyed for centuries. The term 'environmental neo-colonialism' has emerged (Selin & Linnér 2005). Thus, how can one expect economic growth and poverty eradication be resolved within restricted development policies demanded by the North?

Such disputes resulted in, for example, the Stockholm Declaration (Principle 9) which stated that "environmental problems resulting from 'underdevelopment' were best addressed by increased development, including 'through the transfer of substantial quantities of financial and technological assistance as a supplement to the domestic effort of the developing countries'…" (Clarke & Timberlake 1982). Such ideas resulted in demands for a New International Economic Order (NIEO). However, critics argued that such international economic order served to exploit developing countries. Developed countries for long provided cheap labour and law cost raw materials for multinational corporations in the industrialized world. Developing countries asked for increased foreign aid with fewer conditions. Thus, gradually, the calls for an NIEO faded. If one reviews the relationships between groups of countries he/she will realize the tactics and strategies countries usually make to gain positions to gain faster development with less participation in reducing global pollution. (Linnér & Selin 2013,p 980) for example, argued:

"Over the past forty years funding for environment and development has been a central issue often split along the North–South fault line. The UN General Assembly, during the UN's Second Development Decade extending through the 1970s, set a target of 1% of GDP to be committed to official development assistance. Even during preparations for the Stockholm Conference, developing countries argued strongly for 'additionality'—the idea that international resources spent on the environment should be additional to those resources already earmarked for development assistance. Developing countries, however, have expressed continued disappointment at the level of financing for both environment and development".

Or, as the World Commission on Environment and Development(WCED 1987, p.6) argued, the poorest countries were trapped in a "downward spiral of linked ecological and economic decline."(Linnér & Selin 2013).

3.2 Conflict of Interests Between Generations

There are constant tensions with clear divisions between wealthy and poor nations over habits of consumption which will inevitably affect future generations. The term "intra-generation" emerged to refer to equity between generations. The major consideration in dealing with intra-generational equity is usually based on resource scarcity. If resource stocks are scarce, however sufficient in specific consuming

situations, then issues such as eradicating poverty become an impossible target. How such resource redistribution can be achieved in order to reach intra-generational equity? On the other hand, if resources are scarce and will not suffice future generations, then movements have to be created to reach a sustainable condition such as inventing rules or bylaws to control levels of consumptions (Najam & Selin 2011). The question is then: on which level control can be made? Is it in the community, local, city, district or state level? Who can grantee a rule's application if it conflicts with the acting parties' interests? For example, according to an analysis by the UN Joint Inspection Unit (2008), "international environmental governance is ineffective because it lacks 'a common mechanism to resolve contradictions among MEAs [multilateral environmental agreements] ... [and] a framework for common administrative, financial, and technical support services to promote synergies between UN agencies and MEAs'. Most international environmental treaties that are administered by the United Nations have their own secretariats—a practice that has been judged by the UN Joint Inspection Unit as 'rather exceptional under existing institutional arrangements for multilateral conventions within the United Nations system.' Just as within countries, where the environmental policy was strengthened through the establishment of specialized environmental ministries, global environmental governance could also be made stronger through a world environment organization that helps to contain the special interests of individual programmes and organizations and to limit duplication, overlap, and inconsistencies." (Biermann 2013).

If the states are not in agreement on the replacement of the UNEP by another more effective agency, how can they agree on its role? If the role of UNEP as stated in Rio, is merely committed "to strengthening the role of the United Nations Environment Programme as the leading global environmental authority that sets the global environmental agenda, that promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system and that serves as an authoritative advocate for the global environment"(United Nations 2012) ,then who will implement such decisions to achieve sustainability? The United States, for example, insisted on describing the UNEP's role as "an authoritative advocate" instead of "the authoritative advocate".

Who will finance the UNEP? Governments agreed that the UNEP should have "secure, stable, adequate and increased financial resources". In practice, as Biermann explained (2013,p 1102):

"this wording is unlikely to grant the UNEP a stronger mandate or additional financial resources. One concrete reform agreed upon in Rio is universal membership in the governing council of the UNEP, which reports through the Economic and Social Council to the General Assembly. So far, fifty-eight governments are represented in this council, elected by the General Assembly based on regional representation. From now on all countries will be represented in the council, similar to UN specialized agencies that include all member states in their general assemblies. Yet this universal membership for the UNEP governing council is only a rather small step that consolidates reforms that had been agreed upon over a decade ago".

4 ALGERIA'S CASE

Among the reasons for selecting Algeria as a case to prove that urban sustainability is difficult to achieve within the current international political structure is the following:

First: The world is composed of states that are largely independent while the UN is trying to bring them together with no rules that could be enforced. The same is in Algeria. If we view Algeria as a state containing many provinces or counties with a central government in the capital trying to achieve sustainability, we will conclude that the State has little real control because of the lack of means of implementing many rules or regulations, just as if those provinces were independent states. Second: agreements issued regarding sustainability among UN member states are not legally binding and thus may not be applied; the same is in Algeria however differently, i.e., rules and regulations of the central government are not applied because of huge bureaucracy while governmental agencies assigned for sustainability are not functioning properly. Third: agreements, rules and regulations regarding sustainability in all states are quite ambiguous although in their finite details are quite measurable through indicators.

To explain, Algeria's decision-making processes regarding the built environment is quite centralized. This centralization hindered local municipalities from achieving their sustainable targets because of the lack of administrative flexibility to make proper decisions on site regarding diverse new circumstances. Moreover, such targets are quite general, with no specific goals that can be measured. Furthermore, Municipalities did not have the qualified manpower nor the financial resources to implement needed actions to achieve sustainability. Indeed, Algeria's actions to deal with sustainable issues are basically one of issuing rules and regulations on papers with no real attempt to implement them. For example, since 2001, 53 degrees and 21 laws were issued while 7 institutions were established as well to deal with sustainability. A quick observation of those decrees and rules would reveal that they were issued to target isolated sectors or activities. Each governmental sector or institute had its own laws with no coordination among them. Then, as discussed earlier in sustainable economy and sustainable development: how can one achieve economic sustainability without affecting environmental sustainability negatively? It is impossible for example to recycle waste without governmental institutions or private companies specialized and licensed to accomplish such task. It is also impossible to create sustainable transportation system without sustainable transit infrastructure. In short, neither the state nor the local government has clear strategies to deal with sustainability. Definitions regarding sustainability are very ambiguous. Definitions for example have concentrated on the balance between economic and social development and

on protecting the environment, i.e. the definitions did not link the three pillars of sustainability (economic, social and environmental). Another example: the future needs of Algerian society was not planned to match its ecological footprint (as will be explained later).

Even in some cases, some institutions or departments had vast decrees and regulations that can never coexist resulting in massive bureaucratic relationships between governmental agencies within the same province. Or even several institutions could be responsible for one decree resulting in unending legal interpretations leading to bureaucratic inflation, let alone an attempt to satisfy international indicators or indexes of sustainability.

Let us now assess sustainability in Algeria and its effects on urban sustainability, through important indicators in the legal, social, economic and environmental aspects.

4.1 Laws and urban sustainability in Algeria

Charter and the Local Agenda 21) has failed in the absence of a national policy or a national strategy for sustainable development through which we can integrate local businesses at the municipal and local level. The reason is that goals are general and not specific targets that could be measured, and are not suitable for being at the executive level of municipalities. These plans were the result of a public debate held by the Ministry of Regional Development and Environment. However, it failed as it was not a law that could direct municipalities towards sustainability. The main reasons for the failure are: the municipalities did not have the necessary means and methods nor the human resources to deal with sustainability', the absence of a clear methodology for implementation, the absence of the institutions that have the potential to accomplish the program and the supervision needed and the absence of laws and urban tools that supports environmental planning (Habitat III Algeria 2014).

As for the city's policy, the environmental dimension is the largest absentee, despite its focus on sustainability of the city. This is a deficiency in this policy, which tried to formulate a policy for the sustainability of the city of Algeria. How can a fundamental pillar of sustainable development be ignored in shaping the policy and the future of the Algerian city, although it is the source of many environmental problems and the source of solutions? In other words, it will not be possible to achieve sustainability without achieving one of its important pillars. The city is the first source of pollution, its waste and consumption of resources, water and energy. How can a policy be formulated to achieve the sustainable development of the city while neglecting such aspects? The city's policy focused on decentralization, decentralization and good governance, which was confined to citizens' concerns, transparency and consultation between sectors and parties. However, it did not specify the mechanisms by which coordination and consultation between all these sectors and parties would be conducted and how would it be accomplished? The State initiates and administers city policy and sets goals, frameworks and tools in consultation with regional groups. The questions are then: where are decentralization and good governance and activating the role of local authorities? Would it be logical to develop a policy for the city based on tools that are not available and cannot be provided in the short term to implement such policies? Although self-sufficiency is an important standard, the funding was based on public treasury as usual and did not seek other sources. The policy focused on the promotion of the economic function of the city and on the achievement of sustainable development of the city that was never achieved.

The National Scheme of Land Planning 2030 (SNAT,2010) has attempted to draw up a national sustainable development policy based on economic openness, regional balance, environmental sustainability and democratic governance. But seven years after the start of the plan, most of the policies and dimensions of sustainability have not been achieved because of the lack of clarity of the mechanisms of implementation of these strategies, which require political decisions, in addition to the lack of institutions qualified to apply such vision, with the application of sectorial work, although sustainability requires coordination between different sectors. As a result, the state of environmental sustainability is deteriorating at various levels and in most areas.(BEREZOWSKA-AZZAG 2012)

Although many laws have been passed in the area of sustainability and the establishment of many institutions as we have seen, however, the urban sector is still the most absent from sustainability as the plans have not been replaced or modified to meet sustainability objectives. As a result, sustainability laws have not been implemented because the mechanisms and operational tools at the urban level are still working on old schemes.

4.2 Social sustainability

4.2.1 Algeria's Human Development Report 2016

Now let us review some data about Algeria's situation to observe similarities between World political structure and Algeria's structure regarding sustainability. As known, the 2016 Human Development Report (HDR) focused on how human development can be ensured for everyone. The report draws from and builds on the 2030 agenda for Sustainable Development that the 193-member states of the United Nations endorsed in 2015 to achieve the 17 Sustainable Development Goals (SDGs). Algeria's HDI value for 2015 was 0.745, this according to the report put the country in the high human development category. It was positioned at 83 out of 188 countries and territories (United Nations Development Programme 2016).

Between 1990 and 2015, Algeria's HDI value increased from 0.577 to 0.745, i.e., an increase of 29.1 percent. Between 1990 and 2015, Algeria's life expectancy at birth increased by 8.3 years, mean years of schooling increased

by 4.2 years and expected years of schooling increased by 4.8 years. All these are good news. However, Algeria's GNI per capita increased by about 36.8 percent between 1990 and 2015. The question is then: is this increase because of sustainable policies or because of the increase of oil prices in that era? (See Figure1).

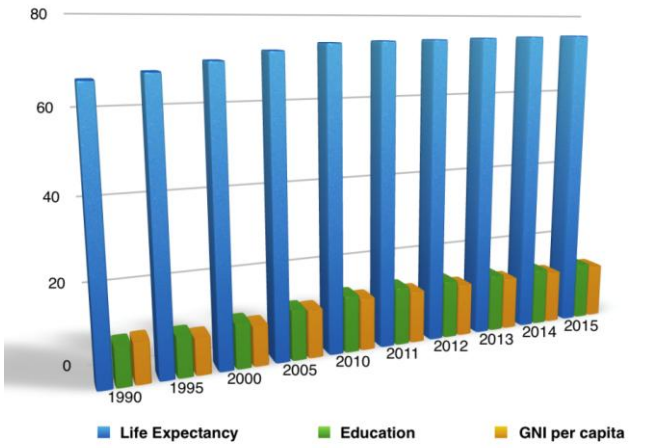

Figure 01: Trends in Algeria's HDI component indices 1990-2015

Source: (United Nations Development Programme 2016)

4.3 Economic Sustainability

The economic outlook has deteriorated with the fall of oil prices thus increasing the urgency to reshape Algeria's growth model. In 2015, real GDP grew by 3.9 percent and inflation increased to 4.8 percent. The fiscal deficit doubled to 16 percent of GDP as a result of the decrease in hydrocarbon revenues, and the fall in hydrocarbon exports by nearly half caused the current account deficit to widen sharply. Reserves, while still substantial, declined by US$35 billion to US$143 billion, down from a peak of US$192 billion in 2013. However, external debt remains very low. These numbers mean urgent need to reshape Algeria's growth model. Following the civil war in the 1990s, Algeria experienced over a decade of steady growth leading to social stability because of increasing oil prices. Algeria managed to accumulate large fiscal savings and international reserves while paying off most of its debt. Yet, Algeria did not improve the structure of its growth model. From 2002 (when oil prices started to rise) until 2014 (when they started to fall), during which the authorities granted wage increases and provided employment, social housing, and subsidies, the public sector remained the only dominant actor in the economy. For example, public banks account for 87 percent of total banking assets in the country. Algerians have to diversify the economy away from hydrocarbons and find new sources of growth that will create jobs for their growing population. (INTERNATIONAL MONETARY FUND 2016).

Comparing Algeria's HDI with its brief history of economic sustainability for the last twenty years reveals that Algerian government invested quite little in human development. By comparison, although western countries invested more on human development, environmental degradation exists in both situations. The reason is that high western countries' investment in human development is coupled with its active industrial production which generates massive waste; meanwhile, Algeria's low investment on human development led to untreated environmental waste although production is much less. In other words, both led to unsustainable conditions.

But the question for Algerians is then: how can they find other sources of income with less pollution? As it is well known, the business environment is the main motive which affects the creation of new jobs, new ideas and new innovative companies which creates wealth with less pollution if managed well. Let us first review Algerian business environment.

4.3.1 Business Environment

Any economy needs entrepreneurs to enhance the economy. The more entrepreneurs in an economy the more the states will be freed from depending on its raw materials that might be depleted in the future. Thus, Business Environment sheds light on how easy it is for locals to start and run a small to medium-size business when complying with regulations. Business Environment tracks changes in regulations affecting 11 areas in the life cycle of a business. These areas art: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency and labour market regulation. Doing Business 2017 presents the data for the labour market regulation indicators in an annex. As stated by the report of "Business Environment":

"The report does not present rankings of economies on labour market regulation indicators or include the topic in the aggregate distance to frontier score or ranking on the ease of doing business. … For policy makers, knowing where their economy stands in the aggregate ranking on the ease of doing business is useful. Also useful is to know how it ranks relative to comparator economies and relative to the regional average. The economy's rankings and distance to frontier scores on the topics included in the ease of doing business ranking provide another perspective. The rankings are benchmarked to June 2016 and based on the average of each economy's distance to frontier (DTF) scores for the 10 topics included in this year's aggregate ranking. The distance to frontier score benchmarks economies with respect to regulatory practice, showing the absolute distance to the best performance in each Doing Business indicator. An economy's distance to frontier score is indicated on a scale from 0 to 100, where 0 represents the worst performance and 100 the frontier." (Doing Business 2017.World Bank 2017). (See Figure 2).

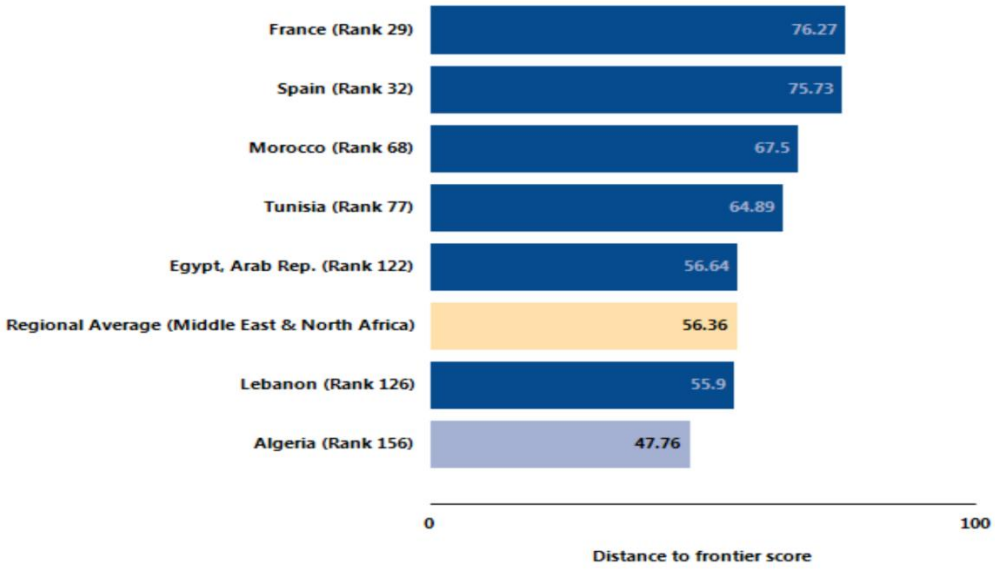

Figure 02: How Algeria and comparator economies rank on the ease of doing business

Source: (Doing Business 2017.World Bank 2017)

As evident from data in figures 3&4, business environment of Algeria does not help entrepreneurs to initiate a profitable productive business. Thus, the economy is largely dependent on the state's revenues. The people as well-known are dependent on their lively hood on the government wages. This is quite characteristic of socialist governance. But how does this dependence links to sustainability? Let us first review Algeria's standing on governance issues. (Doing Business 2017.World Bank 2017).

Figure 03: Rankings on Doing Business topics - Algeria

(Scale: Rank 190 center, Rank 1 outer edge)

Source: (Doing Business 2017.World Bank 2017)

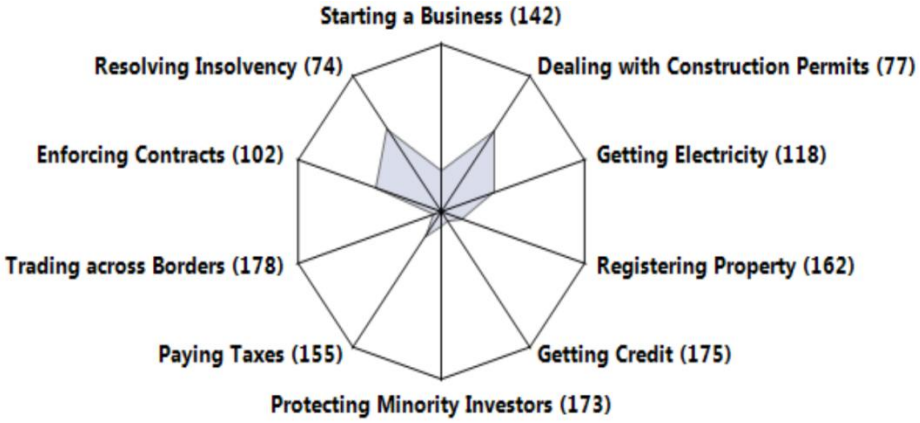

Figure 04: Distance to frontier scores on Doing Business topics - Algeria

(Scale: Score 0 center, Score 100 outer edge)

Source: (Doing Business 2017.World Bank 2017)

Economic sustainability is an important pillar in achieving urban sustainability, especially in the field of business development and economic opportunities. Because of the absence of the infrastructure in most Algerian cities and consequently lack of productivity and their total dependence on state funding, the result is an absence of standards of doing business. We find that Algerian city suffers from many problems in terms of finance and investment and improving the business environment, which affects the urban sustainability of cities.

4.4 Governance of sustainability

4.4.1 The Worldwide Governance Indicators

"The Worldwide Governance Indicators (WGI) is a long-standing research project to develop cross-country indicators of governance. The WGI consist of six composite indicators of broad dimensions of governance covering over 200 countries since 1996: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. These indicators are based on several hundred variables obtained from 31 different data sources, capturing governance perceptions as reported by survey respondents, nongovernmental organizations, commercial business information providers, and public-sector organizations worldwide. These aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. They are based on over 30 individual data sources produced by a variety of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms" (Worldwide Governance Indicators 2015).

From these data, all indicators of Algeria are below 40, and gradually declining over time. For example, regarding voice and accountability, it was in 2005 around 27 and then in 2015 it was reduced to 25. This means that Algerians are not participating in electing their government officials, with much less official accountability. Furthermore, political stability has stumbled to reach 13 percent in 2015 as shown in figure 5. Thus, Algeria was ranked 113 among 128 in political stability. As to government effectiveness, the indicator was reduced from 39 to 35 in 2015, while regulatory quality which indicates private and institutional participation in shaping laws and regulations has gradually declined from 38 to 10 in 2015. Even if some rules and regulations were developed in favour of the private initiative, they will not be effective as they will not be implemented. Indeed, Algeria was ranked 126 among 128 countries in supporting private sectors which usually creates jobs.

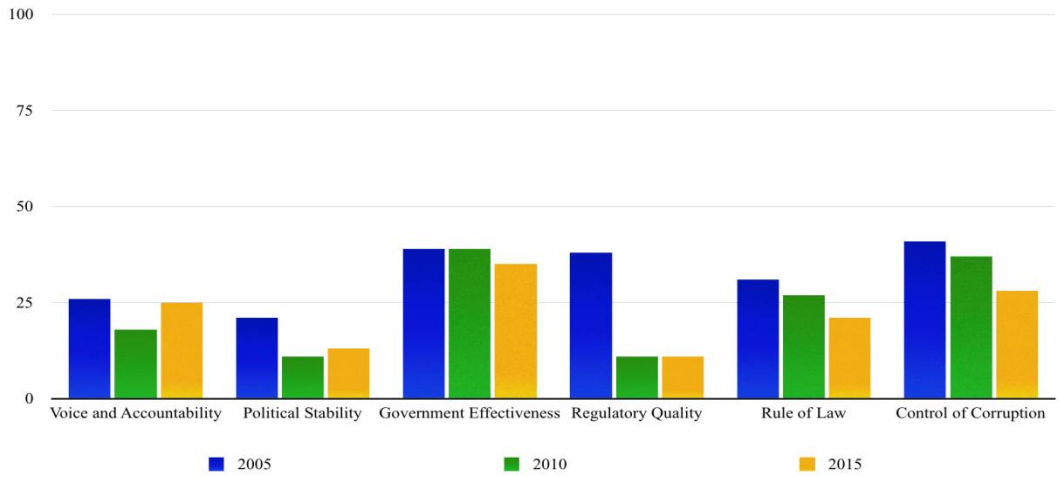

Figure 05: Worldwide Governance Indicators- Algeria

Source: (Worldwide Governance Indicators 2015)

As shown in the figure 5, as Algerian government did not manage to apply its rules, and as the residents did not cooperate fully because of lack of confidence in government officials, the rule of law indicator declined by 10 points in 2015. Regarding control of corruption, the indicator was reduced by 11 points form 41 in 2005 to 29 in 2015. Of course, this is a clear indication of the spread of corruption. Algeria was ranked 106 among 128 countries in the rule of law indicator (Dutta 2016, 175). The question is now, how can Algerians have the sustainable economy if all aspects of governance are weak? Moreover, who controls those who pollute for example if governance is weak and corruption is quite spread?

4.4.2 Global Innovation Index

Innovations and their applicability are considered among major factors of achieving sustainability, especially in smart cities in planning and managing settlements. Algeria is suffering much in this arena. There are very few local innovations or even no application of other culture's inventions nether in transportation nor infrastructure or in public services. According to the Global Innovation Index (which is published by Cornell University, INSEAD, and the World Intellectual Property Organization), Algeria was ranked 113 out of 128 countries in 2016 with a value of 24.46/100.

Regarding ICTs indicator, or using data technology and telecommunications, Algeria was ranked 116 out of 128 countries with 18.4/100, while in Government's online services it was ranked 124 among 128 countries with 7.9/100, and in online E-participation it was ranked 125/128 with 7.8/100. In innovations, it was ranked 122 with 14.6/100, thus of course in information's technology Algeria had 17.7/100 to be ranked 100 among 128 countries (Dutta 2016, p.175) .All these weak indicators indicate that Algeria will not be able to create sustainable urban settings that execute smart solutions for smart settlements to deal with complex conditions with less energy and effort. As we know now, using modern technologies are essential in developing and managing settlements and providing services to create sustainable environments.

The question is then: how is it possible to compare Algeria with western countries in innovations affecting sustainability although they are quite opposite? Of course, Algeria's sustainable record will improve much if it had the same record of innovation of western countries. The same applies to governance indicators. The answer may lie in the following: both situations (Algeria and Western countries) although different, they are within current world political paradigm. Even if one argues that Algerian situation will be improved if the state invested more in human development, compared to western countries, waste will increase leading to more pollution; i. e., humanity should look for a new political paradigm. Sweden for example, although invested much in activities of achieving the sustainable environment, still requires 7 global earths to support its level of consumption. In other words, if the world inhabitants lived liked Swedish people, 7 times the resources and wastes that our planet can regenerate and absorb into the atmosphere is needed. To explain, let us review some data about ecological footprint.

One of the most important factors for urban sustainability and the spread of smart governments is the extent to which innovation and technology are used to plan, manage and sustain cities. Algeria suffers greatly in the use of technology and innovation, especially since there is no plan to develop this important aspect, whether in transport, infrastructure or public services. In addition to not linking dynamically between citizens and communities, between businesses and growth increase, and between innovation and progress, problems of lack of transparency and accountability are inevitable. Sustainability management means that all departments collaborate with communities to become more transparent and accountable to manage resources more effectively, and to empower citizens to

access information about decisions that affect their lives. Technology is the key to a sustainable city, while infrastructure and applications of technology are a necessary condition however without the involvement of public institutions, the private sector, people, NGOs and management, there will be no sustainable city in Algeria.

4.5 Environmental Sustainability

Environmental sustainability seeks to improve human well-being by protecting the sources of raw materials used to meet human needs and ensuring that the limits of waste not be exceeded in order to prevent human damage. The most important element of environmental sustainability is the Ecological footprint.

4.5.1 Ecological Footprint

The Ecological Footprint measures how much demand human consumption places on the biosphere. It is measured in standard units called global hectares. Let us review some explanations relating to ecological footprint:

"Ecological Footprint accounting measures the *demand* on and *supply* of nature. On the demand side, the Ecological Footprint measures the ecological assets that a given population requires to produce the natural resources it consumes (including plant-based food and fibre products, livestock and fish products, timber and other forest products, space for urban infrastructure) and to absorb its waste, especially carbon emissions. The Ecological Footprint tracks the use of six categories of productive surface areas: cropland, grazing land, fishing grounds, built-up land, forest area, and carbon demand on land. On the supply side, a city, state or nation's **biocapacity** represents the productivity of its ecological assets (including cropland, grazing land, forest land, fishing grounds, and built-up land). These areas, especially if left unharvested, can also absorb much of the waste we generate, especially our carbon emission. (Global Footprint Network 2017).

"The Ecological Footprint per capita is a nation's total Ecological Footprint divided by the total population of the nation. To live within the means of our planet's resources, the world's Ecological Footprint would have to equal the available biocapacity per person on our planet, which is currently 1.7 global hectares. So, if a nation's Ecological Footprint per capita is 6.8 global hectares, its citizens are demanding four times the resources and wastes that our planet can regenerate and absorb in the atmosphere." (Global Footprint Network 2017)(See Figure6).

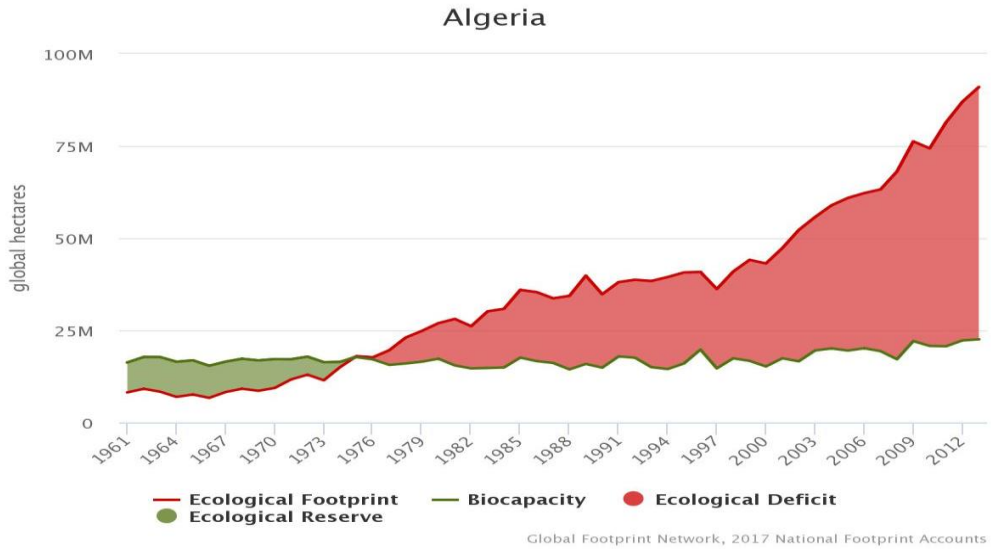

Figure 6: Ecological Footprint Per Capita

"An ecological deficit occurs when the Ecological Footprint of a population exceeds the **biocapacity** of the area available to that population. A national ecological deficit means that the nation is importing biocapacity through trade, liquidating national ecological assets or emitting carbon dioxide waste into the atmosphere. An ecological reserve exists when the biocapacity of a region exceeds its population's Ecological Footprint." (See Figure7).

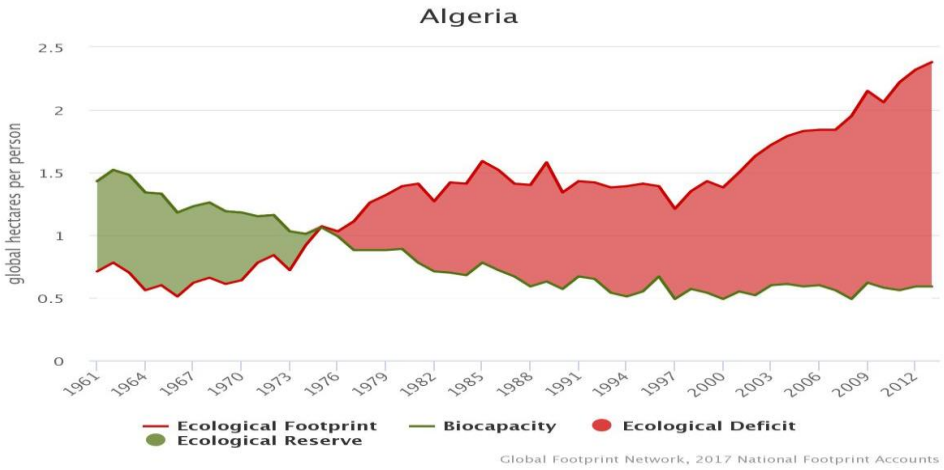

Figure 7: Ecological Deficit/Reserve

Algeria has maintained a constant biocapacity density since 1961, despite economic troubles, and this is in part due to the low contribution of cropland to Algeria's total biocapacity. However, population growth has ensured that available biocapacity per capita has decreased by 65 percent since 1961. Over the same period, the Ecological domestic land, or increased dependency on imports. Figures 6&7 shows how the composition of Algeria's biocapacity deficit and surplus have changed over time: Prior to 1975, Algeria had a biocapacity surplus, comprised entirely of grazing lands. However, since then, Algeria has relied on land outside its borders to balance its deficit, equally split between imports of cropland and the cost of carbon dioxide emissions to be borne by everybody(Global Footprint Network 2010, p.29).

Algeria has a weak biological capacity with degradation of natural resources. It consumes almost twice the resources and the ecological services that are produced by its ecosystems.This environmental deficit is detrimental to Algeria, while the needs of its citizens are not guaranteed and therefore food is imported from abroad. Environmental footprint is a very important tool in assessing sustainability in Algeria, (EPI, Environmental Performance Index,2016) especially in cities that are considered the centre of consumption and production. It should therefore be taken into account in planning and policy development. Unfortunately, it is absent in all economic laws, plans and decisions. It can fill the gap if attention to both forest and productive lands are given while assessing the status of ecological assets and their progress towards sustainability.

5 CONCLUDING REMARKS

In this paper, we have attempted to analyse the reasons for the lack of significant progress in the implementation of global sustainability and its reflection on sustainability in Algeria. Despite the richness of the debate on sustainability, it is still unclear and controversial, and therefore there is no clear agreement on how to achieve sustainability in particular. In addition, the lack of political will and conflicts of interest between different parties and countries concerned to pursue the objectives of sustainability in different fronts of urban, environmental, economic, social and institutional, led to the absence of sustainability.

By assessing sustainability in Algeria, we found that it suffered from environmental, economic, institutional and social unsustainability which had a significant impact on urban sustainability. Furthermore, the lack of a strategy, the lack of clear objectives, and the lack of implementing mechanisms for sustainability with no definition of the concept would lead to unsustainable future.

Algeria lacks a national strategy for sustainability that sets goals to be achieved in the environmental, economic, social and institutional areas. It lacks as the notional strategy that is consistent with the global plans which Algeria is committed to. Algeria needs to draw on the experience of the United Nations to develop the national strategy for sustainability. This strategy sets specific measures and objectives for all areas by providing the path through which long-term guidance is directed at each sector and obligates those sectors to contribute to achieving the objectives at their level of competence. It also needs a national urban policy that would coordinate between various actors for a shared vision for a long-term urban sustainability that would produce sustainable smart cities.

The argument presented here might not be convincing enough as sustainability literature is much in trenched in concepts linking lack of sustainability to government's or NGO's initiatives. This paper argued that other paradigms are needed such as, for example, the dependence on end users' actions. Paradigms that might bring grass roots actions to a responsible level of awareness of sustainability. However, this concept or other concepts seems impossible as all current political paradigms are not and cannot support such targets. Thus, rather than finding new agreements, rules or regulations, or even creating new institutions or associations to achieve sustainability, research effort should also concentrate on finding new socio-political structures (other than western ones) hoping for the development of new paradigms.

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