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Article

## The Role of Real Estate in Sustainable Development in Developing Countries: The Case of the Kingdom of Bahrain

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**Abstract:** The construction of real estate has the potential to advance sustainability in terms of meeting economic and social criteria—the Business Case and the Societal Case. This is a crucial aspect in the stated visions and plans in many developing countries. Hence, it is important to understand how real estate can best contribute. Semi-structured interviews with a number of decision-makers involved in the real estate sector in the Kingdom of Bahrain were undertaken to explore perceptions of how the sector could best contribute to sustainable development. The decision-makers came from government bodies, investment banks, real estate developers, investors, constructors, project consultants and auditors. The interviews highlight the importance of having a stated vision and strategy which is highly visible and shared by all stakeholders. In the case of Bahrain this is Vision 2030 and the National Economic Strategy. It is important to ensure that any plans that are put in place to achieve the vision/strategy are adaptable to reflect changes in the external environment. The decision-makers identified three areas of focus in terms of the content of policy in order to meet the economic and social-related sustainability criteria as set out in Vision 2030 and the National Economic Strategy. These are: infrastructure, affordable housing and tourism/leisure. Within these three areas, that of infrastructure is

also the key enabler for developments in the other two areas to be realized. In terms of a method of governance, the use of public-private-partnerships (PPPs) was identified as being highly appropriate. Such partnerships are not only useful to leverage private sector investment into specific development projects but also to ensure that such development harnesses innovative and efficient methods.

**Keywords:** business case; societal case; natural case; vision; policies; strategy; developing countries; infrastructure; affordable housing; tourism/leisure; public/private/partnerships (PPPs)

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## 1. Introduction

This paper sets out to explore how the construction of real estate can contribute to the achievement of sustainable development. For the purposes of the paper real estate is defined as: “The economy’s stock of buildings, the land on which they are built, and all vacant land. These buildings are used either by firms, government, non-profit organizations and so on, as workplaces, or by households as places of residence.” [1] From this definition it can be seen that real estate makes up the largest single component of a nation’s tangible assets, which along with its financial assets make up the gross assets of national wealth [2] and hence has a significant bearing on a country’s economy and its development.

In terms of contributing to the scientific debate, the work of theorists such as Elkington 1997 [3] and Bieker *et al.* 2002 [4] provide generic frameworks for sustainable development. Such generic frameworks suggest that a number of strategies can be followed as part of sustainable development, each of which view the concept of sustainability through different lenses (or a combination of one or more lens), such as seeking overall economic growth and efficiency; social justice, economic opportunity, income equality; and environment protection [5]. Yet what is lacking is empirical study of how such strategies can be contextualized to specific countries and industries. It is through such contextualization that vehicles for achieving sustainable development objectives are identified and such identification can inform the content of policy and provide the necessary pre-conditions for effective policy implication. This paper addresses this gap by considering the country context of a developing country and the industry context of the construction of real estate. The context of developing countries is worthy of study as many such countries, as part of their policies for sustainable development, are seeking strategies that enable economic growth and development, whilst at the same time ensuring the needs of their societies are met. Furthermore, in such countries the construction of its real estate has a profound impact on both the economy and society, for example through the process of urbanization. One such country faced with such challenges is the Kingdom of Bahrain, which is the focus of this paper.

The remainder of this paper is structured as follows: firstly, we set out the theoretical framework by reviewing salient concepts relating to sustainable development and sustainability, with a focus on their integration to the context of real estate construction. Then we provide background information on sustainable development and real estate issues in Bahrain. The section that follows describes the process whereby data were collected from semi-structured interviews with key stakeholders involved at the policy and strategy-setting level in relation to real estate construction, such as those working for

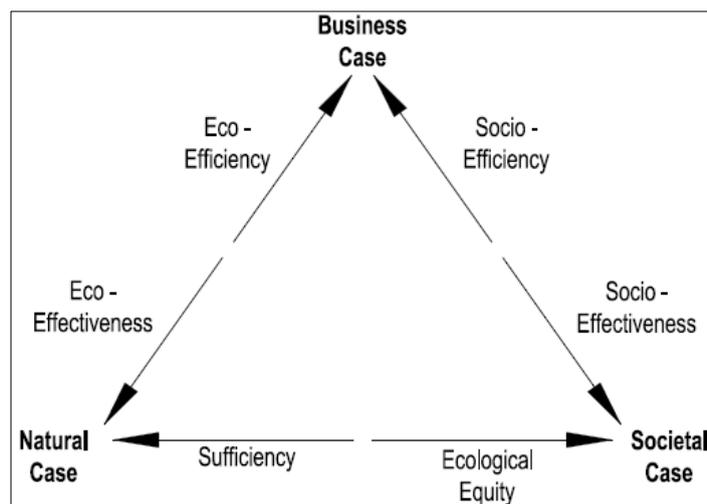
government, investment banks, real estate developers and constructors. The results are reported and discussed in terms of two broad issues: the appropriateness of current high level policy, as articulated in a vision document, to achieving sustainable development and the perceived focus in terms of the content of policy. Here three areas of focus are identified: infrastructure, affordable housing and tourism/leisure. The last part of the results and discussion section considers the role of Public/Private/Partnerships, which are perceived as a necessary and appropriate method of governance for sustainable development to take place in the three focal areas. The final section of the paper draws some conclusions as to the relevance and interdependencies of the themes and the lessons learnt; and it highlights limitations of the study. Lastly a number of propositions are developed that form recommendations for further work and to validate the findings in other cases.

## 2. Sustainable Development, Sustainability and Real Estate

The 1987 report “Our Common Future” put forward a definition of sustainable development as thus: “meet present needs without compromising the ability of future generations to meet their needs” [6]. Whilst there has been much subsequent debate as to its precise meaning there is general understanding of the concepts of sustainability that are provided for in the definition. Hence sustainability is typically conceptualized as having three broad elements: environment, economic and social; referred to as the Triple Bottom Line (TBL) [7] or as encompassing issues to do with people (social), planet (environment) and profit (economic) [8]. In relation to urban development numerous authors have taken the WCED definition of sustainable development and the concepts it highlights and from that created their own contextualized definitions of sustainable development and the elements of the TBL. Hurley provides a useful summary of some of this work, reviewing: Campbell’s Sustainability (Planners) Triangle; Berke and Conroy’s, Conroy’s, Chifos’, and Saha and Paterson’s sustainability principles to guide local government/municipalities planning activities; Portney’s sustainability indices for cities; and Jepson’s sustainable development policy areas for local planning and development [9]. All this conceptual development has its individual nuances, yet they are grounded in the WCED definition and the TBL.

In practice the elements of the TBL are strongly inter-linked and meeting all the challenges for sustainable development is likely to involve addressing the three elements simultaneously. Yet such simultaneous consideration can lead to high levels of complexity in terms understanding all the interactions. As a response to this complexity theorists propose a partial integration, with some of the most interesting challenges being at the interfaces or “shear zones” (p. 78–91) of the TBL [3]. It is at these shear zones that specific problems and conflict are found. For example at the shear zone where the environmental and social dimensions of the TBL meet there is the specific problem of achieving environmental justice. This is because environmental burdens are often unevenly distributed amongst the population. In relative terms those from economically and socially deprived groupings can be more disadvantaged by ecological degradation than less deprived peoples. This is just one example, for illustrative purposes, of the many problems that can arise at the different shear zones.

Considering the different elements of the TBL also creates different sustainability “cases” [4]. This is shown graphically in Figure 1 below, which illustrates that the interactions between the economic, ecological (environmental) and social dimensions results in different strategic foci; where the Business Case focuses on economic sustainability, the Societal Case on social and the Natural Case on ecological.

**Figure 1.** The Three Sustainability Cases [4].

In terms of the Business Case “eco-efficiency” is regarded as the typical approach to the business end of sustainable development and focuses on such activities as energy, water and resource efficiency. “Socio-efficiency” is about social impact, which can be positive in the form of employment creation or negative through work-related accidents and abuses of worker rights. Efficiency though is necessary but not sufficient for full sustainable development, as becoming more eco-efficient can increase rather than reduce ecological degradation—*i.e.*, having more fuel-efficient cars can lead to higher demand and more cars on the road covering more miles travelled. So “eco-effectiveness” is important, which focuses on the absolute levels *i.e.*, of total CO<sub>2</sub> emissions from all cars. Added to this is the concept of “sufficiency”, whereby an individual makes a choice that does not involve unnecessary eco-degradation, such as not buying a luxury car with low fuel consumption per kilometer if a smaller car with a higher fuel mileage is sufficient. These two elements provide the focus on the Natural Case. In a similar fashion “socio efficiency” might not be enough as it could be focused on only one part of society. So again the absolute positive social impact is important—which is conceptualized as “socio-effectiveness”. Finally, for full sustainable development to be achieved and the final one of the three cases met—the Societal Case; their needs to be an equitable solution for the distribution of natural capital, “ecological equity”; where natural capital takes two forms: natural resources, which can be renewable (*i.e.*, wood) or non-renewable (*i.e.*, soil quality) and ecosystem services (*i.e.*, soil remediation).

To adequately deal with the trade-offs between the elements of the TBL there is a need for rules that can be applied to assess the efficacy of possible courses of action. Gibson provides six basic sustainability assessment trade-off rules: (1) any trade-off must deliver net progress towards meeting the requirements for sustainability (2) trade-offs that involve acceptance of adverse effects are undesirable unless proven otherwise (3) no trade-off that involves a significant adverse effect on any sustainability requirement area can be justified unless the alternative is acceptance of an even more significant adverse effect (4) a displacement of a significant adverse effect from the present to the future cannot be justified unless the alternative has a greater adverse effect (5) all trade-offs must have an explicit justification (6) a choice involving a trade-off must be made through a process that is open and inclusive [10]. In the context of real estate construction this final point stresses the importance

of inclusive policy making and development. Although these generic trade-off rules are applicable to all cases, they need to be implemented with due regard to the specific context and, to enable this regard to happen, will require supplementary detailed guidance [11]. The application of policy then in terms of the construction of real estate needs to recognize the need for context specific development.

In terms of the interplay between economic and social elements in the form of socio-efficiency and socio-effectiveness the impact of real estate on a country's development can be profound. If effectively mobilized the real estate industry can contribute to meeting economic and social sustainability-related criteria, for example by providing local employment and creating economic growth in local communities through the utilization of human and material resources to construct new, or renovate existing buildings ([3,8]). The potential to advance sustainability is magnified if one considers the multiplier effect, in terms of the high levels of interdependency and influence real estate construction has on other industries, such as providing employment and business for the various upstream supply chain organizations involved in the construction, maintenance and operation of the buildings [12]. Yet this potential is not always fully realized [13].

A further problem can occur when elements of the TBL are conflated in the name of sustainable wealth generation, for example through real estate development, for a dominant minority. This arises from an acceptance of the validity of the dominant sustainable development discourses which put the economic imperative ahead of what were planning's traditional concerns of fairness, equity and social justice [14]. This leads one to question whether plans that use sustainable development as a concept to guide the process actually promote sustainability principles. Empirical study of a set of 30 comprehensive plans that explicitly included ideas for sustainable development found that this inclusion did not translate into an increase of idea promotion. In addition such plans did not go beyond traditional content for all plans to encompass elements that would promote techniques for sustainable development [15]. Later work by the same authors confirmed this disconnect between the inclusion of sustainable development concepts and the promotion of sustainability principles. Additionally this later work established that the presence of a planning mandate with the involvement of a diverse range of interested parties, such as local communities, in the planning process was a key factor that increased the overall support for sustainable principles—other factors being the creation of best-practice information and the sharing of practical experiences of both successes and failures [16].

### **3. Sustainable Development and Real Estate Construction—The Case of Bahrain**

The Kingdom of Bahrain (or Bahrain) is a member of the Gulf Cooperation Council (GCC), which includes Kuwait, Oman—or Sultanate of Oman, Qatar, Saudi Arabia—or Kingdom of Saudi Arabia and United Arab Emirates (UAE). Bahrain is a country with a population of 1,234,571 (2010). Its GDP at 2010 constant prices was BD 10,206.7 million (2012) and its real GDP growth % year-on-year was 3.4% (2012). The unemployment rate of Bahraini in March 2013 was 4.2% and public sector debt as a percentage of GDP stood at 36.7% in 2012 [17].

The example of Bahrain illustrates the difficulty a developing country can face in meeting sustainability criteria whilst constructing its real estate. In common with other countries in the Gulf Region, the Kingdom of Bahrain has witnessed a massive growth in its real estate over the past 10 years, with multi-billion dollar developments in residential properties, commercial centers, shopping malls,

sporting and leisure facilities and the creation of recreational spaces [18]. Many landmark projects have been undertaken, including: the Amwaj Islands and Durrat Al Bahrain, investments involving the creation of real estate on man-made islands built through land reclamation from the sea [19]. The focus of these and other developments has mainly been on meeting economic sustainability criteria, *i.e.*, achieving the goal of reducing the country's dependency on oil and on facilitated the diversification and privatization of its economy into such sectors as finance, leisure and tourism and IT [20].

In this task the country has been relatively successful. According to the World Bank [21] the country is in the "high income: non OECD" bracket, having a Gross Domestic Product (current US\$) of \$22.95 billion (2010) with a population of 1.324 million (2011). In terms of its development, indicators published by the World Bank assess such factors as: (1) the extent of participation of citizens in the choice of government and the presence of things considered to be important in a free society *i.e.*, freedom of expression/association, and a free media; and (2) the quality of public services/civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies [21]. Using such indicators to assess performance of countries in the Middle East and North Africa (MENA) region, Bahrain's percentile rank positions were 71 and 14 respectively, closely comparable to the neighboring countries of Oman, Qatar and UAE against indicator (1) but significantly lower than all except Oman against (2). The World Bank data shows the danger of trying to make assumptions of homogeneity between MENA countries and a high level of variability is indicated when one introduces a range of other variables, such as global competitiveness and GDP growth [22].

There have been specific problems, experienced by some of the neighbors like the UAE, which relate to economic and social sustainability criteria. In Bahrain, the boom in real estate was accompanied by a rise in non-nationals—who make up about 60% of the population [18]. Large numbers of western expatriates moved to Bahrain to work in the construction industry and in the new service sectors, such as the banking industry. This creates a demand for residential properties, which in turn leads to the prices of land increasing dramatically (3–4 fold over the past 10 years) [23]. Bahrain nationals from low income groups then find it increasingly difficult to afford to buy a house, which leads to a sense of exclusion. Such exclusion can help fuel social unrest. Another low income group is the migrants from the Indian and Asian sub-continent who provide the labor for construction and facilities management [18]. As well as the problem of exclusion from housing due to a lack of purchasing power, as experienced by some Bahraini nationals, migrants can also suffer from social exclusion, being a long way from family and living in temporary accommodation on sites geographically isolated from support services.

The real estate development has also been focused almost exclusively on the northern part of Bahrain Island, the largest of the archipelago of 33 islands that form the Kingdom of Bahrain, whilst other parts of Bahrain remain underdeveloped.

Development in the north has traditionally, and continues to be, been higher than in the south for two main reasons:

- (a) Most of the oil and gas fields are located on the southern part of Bahrain. Therefore, after Government investigation to ensure that there is no potential for oil exploration, the land will be released for development. The development includes housing, and development for tourist

attractions. For instance, Hotels at Al Areen, Al Jazire beach, extension of Hamad Town residential, Durrat Al Bahrain residential development *etc.*;

- (b) In view of its close proximity to the airport, national capital and well developed infrastructure, development in northern side of Bahrain grows at a faster phase.

Finally, whilst diversification has been successful in some sectors of the economy it has been less so in other target areas, such as tourism, in which the Kingdom of Bahrain has faced strong competition from neighboring countries, such as the UAE.

One way of navigating through this difficult terrain and avoiding some of the undesirable consequences that Bahrain has encountered is to develop an integrated plan for the real estate industry which will consider, in part, the meeting of sustainability criteria alongside the achievement of the higher level goals ([24–26]). In this respect, sustainability is not the end goal itself of a program of real estate development, but a constraint; whose absence may limit the usefulness of a good program [27]. The key is to understand the overall end goal and then align sustainability criteria to the achievement of that goal.

In 2008, the Kingdom of Bahrain produced a comprehensive vision for Bahrain's development, including real estate, for the next 20+ years titled "Vision 2030" [28]. Vision 2030 is not an explicit sustainability strategy but it contains within its contents references to sustainability—which in the document is conceptualized as focusing on the Business Case and the Societal Case [4]. From a real estate perspective this equates to development that is profitable and fair. (Development that is "green" and meets the Natural Case is not neglected—see below points 2 and 7, in particular, of the country's eight planning principles, though it does not have the same prominence in the vision as the other dimensions of sustainability.)

The institutional conditions in which real estate construction takes place are governed by the details of the Bahrain National Development Plan (BNDP) [17]. The BNDP addresses the role sustainable land use development can play in guaranteeing stable, predictable, and long-term economic growth. The Plan addresses issues such as natural resources, inadequate housing, lack of zoning, weak transport infrastructure, insufficient public open space and the need for improved education and comprehensive employment. The plan is the output of an "intelligent, sustainable national planning effort under a focused, centralized and predictable vision" [17]. It lays out 10 key strategies that coordinate and focus development, control land speculation, protect resources, preserve historic and ecologically important sites, integrate transport and ensure public access to open space and the waterfront.

All real estate development must be consistent with, or not contravene, the following planning principles:

- (1) Helps achieve a market economy specialized in global and regional markets to increase trade, improve productivity, develop higher-profit jobs and create new commercial wealth;
- (2) Preserves and strengthens environmental resources;
- (3) Establishes an interconnected, intermodal transportation strategy incorporating dedicated bus, rail and water-based transit;
- (4) Builds distinct communities that reduce sprawl, efficiently utilize land and transit, help maintain;
- (5) Preserves Bahrain's traditional way of life and historic landmarks;
- (6) Develops the public waterfront;
- (7) Protects the country's cultural and archeological heritage;

- (8) Meets future military needs by ensuring protection of access to training and staging areas and integrated military land-use strategies.

The overall aim of Vision 2030 is to improve the living standards of all Bahrainis. Its purpose is to enable a tangible and coordinated National Strategy across government institutions to be established—and a National Economic Strategy (NES) was subsequently developed. Specific ministries then aligned their own strategies to Vision 2030, for example the Ministry of Works started the roll-out of a long-term approach to strategic management [29]. Through the implementation of the various strategies a competitive economy and a fair society will be built; leading to a better life for every Bahraini. Hence the aim of Vision 2030 will be achieved, in part, by delivering against economic and social sustainability criteria. It involves harnessing the private sector through entrepreneurship and innovation and realizing the potential of young people joining the workforce through training and education. It is a moot point though as to how real estate can best contribute to achieving such vision and delivering the strategy in order to best meet the sustainability criteria. Exploring this point provides the rationale for the paper and the basis for the aim as set out at in the introduction to this paper.

#### **4. Methods**

To explore how the construction of real estate can contribute to the achievement of sustainable development in a developing country that achieves economic goals whilst meeting societal needs qualitative data were collected from semi-structured interviews. Such interviews enable the issues to be explored in-depth with the stakeholders involved in setting real estate policies and strategies in the Kingdom of Bahrain. The semi-structured format allows interviewees to talk freely about the subject [30]; whilst minimizing the risk of the interview losing focus due to the absence of some structure to guide the discussion [31]. The interview format is particularly appropriate for addressing the “how” question [32]—which is at the heart of the research question being investigated. A non-probability sampling method was utilized. This involved a purposive sampling approach, which entailed selecting a sample from the target group with a specific purpose in mind [30]. In this case the purpose was to obtain the perceptions of those involved in the decision-making of real estate developments and investments in the Kingdom of Bahrain, either directly or indirectly through the setting of macroeconomic policy. An analysis of samples sizes used in qualitative research found 30 people being the average number interviewed [33]. Though for smaller scale and exploratory studies—as is the case here—the analysis suggests that 25 participants is an adequate sample [34] and that little new insights come to light after about 20 people have been interviewed [35]. Hence, 25 top managers and senior executives working in organizations across the whole spectrum of real estate development activities were interviewed. At this point no new issues were being revealed and it was concluded that all of the perceptions that were important had been uncovered. A breakdown of the types of organizations for which the interviewees worked is shown in Table 1.

**Table 1.** Types of organization of those interviewed.

Type of organization	Number interviewed
Government body	8
Investment bank	3
Real estate developer/investment company/constructor	12
Project consultant	1
Audit firm	1
Total	25

The interviewees' positions in their organization are shown in Table 2.

**Table 2.** Position held of those interviewed.

Person IDENT	Position held	Number interviewed
MST (#1–#8)	Minister/undersecretary/chief executive office [CEO] of government body	8
TEM (#1–#14)	CEO/chairman, president/owner/partner of private organization	14
SE (#1–#3)	Senior executive—chief finance officer [CFO], chief investment officer [CIO], director of private organization	3
	Total	25

The *a priori* focus of the interviews was on exploring with participants the specific ways different components of the real estate sector could contribute to sustainable development. Hence the first part of the interview was structured around understanding perceptions of the appropriateness of Vision 2030 as a vehicle to drive the real estate sector to contribute to the sustainable development of Bahrain. Once these perceptions had been adequately captured the second part of the interview was structured around understanding how the real estate sector could best contribute to achieving the vision and strategy in the future. This was done by exploring perceptions of the successes and failures of the sector in the past—and in comparison to neighboring countries, such as UAE and Qatar—and opinions of how the real estate sector could best respond in the future. Interviews were conducted in English. They were all recorded and subsequently transcribed. The data were then analyzed using content analysis ([30,31]). The items were classed as the components of the real estate industry and were derived using the word, phrase or sentence in the transcript as the unit of analysis [36]. From this key themes were identified.

## 5. Results and Discussion

There was widespread consensus that, whilst it was too early to make a definitive judgment on its success, the sustainable development goals as set out in Vision 2030 were appropriate and achievable. Within this context there was a common view that the real estate sector can make a significant contribution to sustainable development. Perceptions were that there is a strong interplay and interdependency between economic and social elements. This was articulated by the President of a Project Consultancy (TEM#14—see Person IDENT in Table 2): “*the development of real estate has*

*always impacted on the national economy and vice-versa. Put simply more new construction, with better quality building, better environments for people to live and work in means a more satisfied workforce that in turn serves the national economy better.*” However, the potential positive contribution of real estate is not always realized in practice and examples were given of situations where it had a negative impact. A typical example was provided by CEO of an Investment Bank (TEM#13):

*“...in fact the development in the real estate sector has a positive impact and a negative impact on the other hand. From the positive side it has created many job opportunities, whereas in terms of the negative there has been no system which controlled the prices. As speculation was very strong during the past four years, it has resulted in ‘fancy’ numbers and irrational prices.”*

The subsequent analysis of the data produced two broad areas of interest: (1) the appropriateness of the vision to achieving the desired sustainable development; (2) the link between real estate construction and sustainable development. The remainder of this section takes each area in turn.

### *5.1. The Appropriateness of the Vision*

The first area of interest contained in the data relates to the appropriateness of the vision to the achievement of sustainability-related criteria. As mentioned previously, the vision and strategy were contained in the Vision 2030 and National Economic Strategy documents. Amongst the interviewees there was general agreement that having a stated public vision is crucial. This was articulated by CEO (TEM#11): *“When there is no public vision, such as the Vision 2030, nobody has any idea of where they are going. Everybody is looking at the guy next door hoping they can speculate on what might happen.”*

Such a public and highly visible vision ensures that any strategies and plans to meet sustainability-related criteria are aligned and driven in the correct way. This point was made by CIO (SEM#3):

*“I think the National Strategic Plan should be part of the Vision 2030. So the driver is the Vision 2030 and one component of it is the National Strategic Plan that will put in place the key drivers to be able to achieve that vision. Now that vision talks about a lot of economic initiatives: housing for every Bahraini, diversifying revenue sources away from oil and having a diversified economy. If you take Vision 2030 as the foundation then we have no choice but to adjust the Strategic Plan to be able to be one of the contributing factors for making Vision 2030 successful. So the Strategic National Plan is actually a tool for delivering the Vision 2030 and has to drive it.”*

From a normative point of view such a top down initiative was perceived to have merit by the interviewees, yet there was also a recognition that plans might need to be modified to reflect changes in the wider environment. Specific changes were described by the Minister (MST#3):

*“We have problems such as the price of land was inflated and this has led to a slowdown in progress against the plan... The fast moving of the sector created some inflationary pressure and rising prices. The building material costs went up and contractors had a shortage [of materials]. Prices unfortunately doubled or trebled in some instances at certain points in time and the price of land became unaffordable.”*

So it is difficult to keep any plan aligned 100% with the overall vision. It is also difficult to anticipate how external environment pressures will develop in the future. Though the interviewees perceived that without a clear long-term vision short term objectives could not be achieved. A further difficulty identified was related to implementing strategies at the operational level. This involved the problem of getting all stakeholders to deliver. An example was given: “*I respect the fact that [company] have seen what the National Development Plan (NDP) was saying and they wanted to allow for low income housing in Diyar Al Muharraq according to the NDP; but not all the real estate projects have adopted the same policy.*” (MST#3)

Whilst the interviewees saw the vision as appropriate it is noteworthy that the economic and social aspects of sustainability are given prominence in the documents yet environmental aspects are not equally prioritized. The Vision 2030 document has a section titled “Sustainability” [28] (p. 10) though in this section the description of the term is couched exclusively in economic and social terms. However environmental issues are included in the Vision. For example an aspiration is stated that Bahraini nationals and residents will enjoy “*a sustainable and attractive living environment*” in which “*Bahrain will continue to be home to a rich and ancient culture and a sustainable natural environment*” [28] (p. 24). To support this aspiration various environmental initiatives are proposed, which include: conserving natural spaces for future generations; implementing energy-efficiency regulations *i.e.*, for buildings and electrical appliances; and directing investments to technologies that reduce carbon emissions, minimize pollution and promote the sourcing of more sustainable energy [28] (p. 24). These initiatives are not under the section on Sustainability but one labeled “Society”. And the initiatives relate to one of 5 aspirations for a “fair, thriving society” [28] (p. 20).

In early research on sustainability in the area of procurement it was posited that focusing on the environmental aspects may provide a transitional route towards full sustainability [37]. Support for this theory was provided by empirical research in cases where environmental initiatives lead to financial saving—hence a knock-on effect on economic and, perhaps, social sustainability criteria [38]. This earlier work has a Western-centric focus and in part reflects the attention being paid to the environmental element of sustainability amongst developed countries. The proposition being put forward is that economic and social benefits can be achieved as a corollary of meeting environmental-related sustainability criteria. The experience in Bahrain suggests a different relationship may exist in developing countries in terms of the three elements of the TBL: environmental, economic and social [4,39]. Unlike in developed Western countries, here the main drivers seem to be economic and social, with environmental benefits being a corollary to the other two.

## 5.2. *The Link between Real Estate Construction and Sustainable Development*

Four broad themes emerged from the interviews regarding maximizing the contribution of real estate construction to sustainable development. These themes were: (1) infrastructure; (2) affordable housing; (3) tourism/leisure; (4) public/private/partnerships (PPPs). All four themes were perceived as vehicles for achieving sustainable development objectives by the participants, though their individual contributions are of a somewhat different nature. Infrastructure, affordable housing and tourism/leisure relate more to the content of policy and as such can be viewed as necessary preconditions for

sustainable development. PPPs, on the other hand, are more of a governance style for delivering the other three and hence may be considered subordinate within the overall content of policy.

### 5.2.1. The Content of Policy

#### 5.2.1.1. Infrastructure

The need to provide adequate infrastructure as an enabler to other real estate construction activities was emphasized. This is consistent with studies of land use and planning systems in other countries, including developed countries [40]. The CEO (TEM#11) explained how *“infrastructure demonstrates that what you’ve got in your plan is in fact going to be built. Because the first thing, as in all real estate, is that you have to have all of the state’s major works infrastructure in place to create the land and to make it saleable—and the connection is the most critical.”* Infrastructure was perceived as one of the key drivers of the real estate industry. In particular the industry will only attract large private sector investment—which is seen as crucial as sustainability criteria can only be met through the involvement of the private sector (see Section 5.3 below)—if adequate infrastructure development is initiated by the government. Furthermore, in the opinion of one of the interviewees *“the [overly high] cost burden of infrastructure put onto master developers is the single largest factor constraining the roll-out of developments within Bahrain, with the master developers having to contribute or to pay for services that would clearly be government costs in most parts of the world. Accordingly this drives land prices upwards”* CEO (TEM#1).

As well as enabling economic-related sustainability criteria to be met infrastructure contributes to social-related criteria as well. An example given relates to road building. Here, investment to reduce congested roads is needed as such environments are undesirable as places to live (CEO TEM#5). Hence the development of infrastructure is seen to contribute to wider sustainability goals and its enabling role in terms of real estate development is not the end in itself. This point is made by the Minister (MST#7): *“The investment [in real estate] is not to promote real estate development per se. But rather real estate investment will benefit from the infrastructure developments and the activities of the government in encouraging investment in economic activities.”*

The development of infrastructure in developing countries needs to be accompanied by methods to assess and measure such projects against sustainability-related criteria. Prior research suggests that in such countries the priority criteria encompass health and safety, poverty alleviation, institutional strengthening (through the development of people) and the environment [41]. So a framework of Key Performance Indicators encompassing sustainability is recommended from the design stage onwards of infrastructure projects.

Linked to the development of an infrastructure is having a differential strategy whereby different “clusters” or zones of real estate are identified. CEO (TEM#1) described how such an approach had been effectively adopted in UAE—another member of the GCC:

*“UAE certainly and in particular Dubai had different strategies such as the creation of separate clusters i.e., free zone, knowledge city, media city, sports city, IT city and outsourcing city. In addition new areas were developed from scratch providing freehold investment opportunities.”*

So concentration of investment into one particular type of real estate may not maximize the contribution of the sector to economic sustainability. Further, any planned development would need to be accompanied by the provision of infrastructure capable of supporting such development. For example MST#3 described possible problems with some developments in Dubai due to inadequate sewage treatment facilities. In their words *“you have to know that when you go fast [in real estate development] the exposure is higher and not only this but also the costs are higher in infrastructure and service as well.”*

As well as ensuring infrastructure capability is in place there was a perceived need to have zoning laws that are clear and, crucially, applied consistently. CEO (MST#5) said: *“we need to have a system and regulation for zoning. Especially when it comes to real estate we should have proper regulation and systems like other countries. In Dubai for example they have proper real estate regulations, rules and policies even on colors and building codes. In my understanding Muscat has only 3 types of arches that are approved by the government that you can use. In Bahrain there is no consistency and no building code to it.”* Indeed the experiences of other countries suggest that a failure to adhere to land use zoning laws has a large negative impact on sustainability in terms of urban development, such as housing [42].

#### 5.2.1.2. Affordable Housing

Of all the priority areas for focus in terms of sustainable development the construction of affordable housing was the preferred option of the interviewees. The comments of the Minister (MST#3) were typical: *“I think you know if you ask me what is going to be a better way to invest in real estate I think you have to target the low-medium income housing. This is one of the areas that will create a big cycle because the demand is very high and there isn't enough supply”*. Another Minister (MST#7) estimated this demand to be no less than 5000 units per year over the next 10 years period (a total of 50,000). In highlighting the importance of housing the interviewees' views are consistent with views in other countries, such as the UK, that the significance of the links between housing, poverty, unemployment and material deprivation require greater attention by policy-makers [43].

On the supply-side of affordable housing a major contribution to economic-related sustainability criteria—and also to achieving the social-related criterion of “fairness”, is in providing access to the market for smaller contracting companies that, due to their size, are excluded from much of the wider works program. The partner of the Audit Firm (TEM#5) described it thus: *“[low cost residential project] will have an impact on the small contracting companies because the large contracting companies cannot build the low cost because their overheads are [too] high. The large contracting companies are definitely able to do the premium work, which is at the higher end. They are able to do the marines/beaches and so on. The special zones—again the large construction companies will have a better say on it.”*

The provision of affordable housing arguably has a great potential to drive change in all three areas of the TBL. The mechanisms for such provision are often subject to more regulation and influenced by government policy than other housing sectors [44]. As such regulation and policy can focus on meeting environmental-related sustainability criteria as well as contributing to local economic stimulation, social justice and well-being. In the case of Bahrain the Ministry of Housing (MOH) is

responsible for the allocation of social housing financing to eligible Bahraini citizens. The vision of the MOH is to ensure a superior quality of life and a sustainable living environment for Bahrain residents through facilitating access to adequate and decent housing, in particular for those citizens with limited income. Hence, as a key stakeholder involved in the funding of both new builds and repairs and refurbishments to existing housing stock they are ideally placed to further the sustainability goals articulated in Vision 2030.

#### 5.2.1.3. Tourism/Leisure

The interviewees perceived that the tourism sector was important in contributing to sustainable development as high tourist spending creates a multiplier effect in the economy. For example the Minister (MST#7) said: *“There is no doubt the Formula One development has put Bahrain on the map as far as Tourism is concerned and no doubt had [a positive impact] on other sectors of the economy as well”*. The development of the leisure and entertainment sector is seen as crucial to meeting economic-related sustainability goals. A graphical example of the negative impact of neglecting this aspect when developing real estate was provided by the CEO of the government investment (MST#5):

*“We also need leisure to be able to attract more foreign companies to setup business here in Bahrain. A while ago British Airways used to have their Middle East hub located in Bahrain. Somebody went to the Late H.H. Amir of Bahrain and told him that British Airways are moving their hub to Dubai. So the Late H.H. Amir of Bahrain called British Airways in Bahrain to ask why they are moving and the reason given was that we don’t have enough social attractions—we don’t even have single golf course. So in order for me to be able to bring in talent into Bahrain I need to have entertainment and leisure to give them an incentive to come. The first thing Dubai did was build a golf course.”*

This example illustrates the difficulty of balancing economic and social sustainability criteria. Whilst from an economic perspective an influx of foreign investment and workers might be desirable, it can have unintended consequences, such as leading to a shortage in housing for low-income groups as described earlier, which works against the vision of creating a fair society. The problem of conceptualizing and practicing “sustainable tourism” has been recognized elsewhere; one strategy suggested is that of a “sustainable livelihoods approach” in which the introduction of tourism to communities is seen as complementary to existing activities and does not displace them [45,46].

### 5.3. Governance Method

#### Public-Private-Partnerships (PPPs)

A majority of interviewees opined the PPPs were crucial in order to realize the sustainable development goals in Vision 2030. The numbers were described by a managing partner in the Audit Firm (TEM#5):

*“In the next 5 years there is a need to invest about 20 billion dollars in various projects if we want to achieve the objectives listed in the Vision 2030. We have a need in healthcare, education, transportation, power, utilities and many more. These things all can’t happen because our budget is*

*very thin. Out of the 9.5 or 10 billion dollars budget that we have for this year we only have 1–1.5 billion for these projects and the rest would go for direct expenses, salaries and wages and so on. The 1.5 billion dollars is not enough to complete these projects.”*

To support such PPPs the government would need to create a “win-win situation” (TEM#5) for partnerships to work for all *i.e.*, make land available at concessionary prices, provide guarantees and funding at reasonable prices, minimize bureaucracy to create a fast and efficient approvals process and ensure great transparency in the decision-making process. The CIO (SEM#3) added that there needed to be “*clarity on the granting of government approvals, the development process and the provision of infrastructure service to the boundary of these developments is key to success and to maintain growth of Foreign Direct Investment (FDI).*”

The need for PPPs was highlighted as a means to meet the demand for affordable housing—see Section 5.2.1.2 above. The problem was articulated by the Minister (MST#7):

*“Importantly when we speak about real estate, it’s housing especially for the low cost housing. Although to date we haven’t managed to utilize this fully as you know now there is still a potential and there is ongoing attempts to bring in the private sector. In any economy regardless of how strong it is ... you can never depend 100% fully on the status—you need to have the private sector, the FDI.”*

Clearly PPPs in Bahrain, as elsewhere, have the potential to contribute to economic sustainability. This in part reflects the view that the private sector brings not only much needed capital and other resources but also enhanced efficiency and innovative methods [47]. However, PPPs can also contribute to the achievement of other sustainability-related criteria. In order to do so the selection of the right private sector partners is critical. To facilitate this frameworks are needed to evaluate the relational and sustainability performance of potential partners as well as technical performance [48].

## 6. Conclusions

To conclude, this paper set out to explore how the construction of real estate can contribute to the achievement of economic and social-related sustainability in the Kingdom of Bahrain. It did this by seeking the opinions of 25 decision-makers involved in the real estate industry as to how the sector could best contribute to sustainable development. The research took place in the context of a vision and strategy for the country for approximately the next 20 years. This vision and strategy was articulated in two documents: Vision 2030 and the National Economic Strategy.

The content of the vision and the strategy documents recognizes that all three elements of the TBL need addressing. Yet in terms of the drivers the emphasis is on economic and social (the Business Case and the Societal Case). Environmental criteria and the Natural Case are not ignored but are not headlined. In this sense it suggests that the sustainability discourse may vary depending upon the specific country context. In many developed countries environmental-related sustainability issues have been at the fore. Whilst in some developing countries, especially those that are net producers of sources of energy, those related to economic and social sustainability could provide the lead. Furthermore, meeting elements of the Natural case, such as constructing Green buildings, can contribute to meeting societal needs, as such buildings can be eco-efficient and, amongst other things, reduce running costs for occupiers. The need for eco-efficiency and effectiveness may also grow in

importance in future strategies for other reasons. For example, whilst environmental issues may have been traditionally low on the agenda of oil and gas rich developing countries, this dynamic can change as demand for such non-renewable energy sources flattens and supplies become depleted or when domestic consumption of non-renewable sources, such as oil, starts to match capacity to produce. These points lead to our first proposition:

*Proposition 1: In developing countries, where the focus to date has been on economic imperatives, meeting societal needs at the same time as the economic imperatives is providing the context for the current phase of sustainable development; and meeting such needs will contribute to a growing focus on eco-efficiency and eco-effectiveness in the construction of real estate in the next phase.*

The decision-makers identified three areas to prioritize for the construction of real estate to meet both the Business and the Societal Case for sustainable development. These are: infrastructure, affordable housing, and tourism/leisure. All are potentially powerful vehicles for achieving sustainable development. Whilst providing distinct and distinguishable areas for establishing the context of policy it is important to recognize the relationships and interdependencies between the different areas. For example for the positive potential of affordable housing and tourism/leisure to be realized the provision of infrastructure is a key requirement. Indeed the potential of others in the real estate sector *i.e.*, housing can only be realized if the requisite infrastructure is in place; so some policy content needs to be seen as a necessary enabler of other content. In terms of realizing this enabler, a key requirement is ensuring that zoning laws through which areas of land map against the infrastructure are clear and consistently applied. Providing affordable housing can deliver against economic, social and environmental-related sustainability criteria. Here, the government can take a lead role by putting in place policies to guide the building and refurbishing of the housing stock. Tourism and leisure can make a significant contribution to economic sustainability, in part through the multiplier effect. Care needs taking though to ensure that unintended negative consequences from unmanaged tourism don't arrive. Such negative consequences can be mitigated through the development of a sustainable livelihoods approach which ensures local communities social and economic-related sustainability criteria are not disregarded. Consideration of these areas for policy and their likely relationship provides the basis for the second proposition:

*Proposition 2: In terms of the content of policy for sustainable development that is socio-efficient and socio-effective in meeting the Business Case and the Societal Case, prominence in developing countries needs paying to the construction of infrastructure, affordable housing and facilities for tourism and leisure; within such provision, infrastructure is the key enabling vehicle for the other two.*

Finally it is recognized that the realization of sustainable development through such activities as infrastructure, affordable housing and leisure/tourism provision will only be realized through partnerships between the public and the private sectors. Part of this recognition is that in many developing countries the very high level of up-front capital required cannot be raised solely through the public purses. To create an environment in which private sector companies will be willing to invest in different initiatives will require a coordinated approach at the policy level to the impact of such activities as the granting of approvals, the development processes and the provision of infrastructure—where the investment is in areas such as affordable housing and leisure/tourism

facilities. In terms of sustainable development that is both efficient and effective, the private sector can bring valuable knowledge and expertise; though this will require the careful management of Public Private Partnerships (PPPs). Part of this management is the selection of partners that can demonstrate the ability to perform against sustainability-related criteria as well as technical ability. The potential contribution of PPPs leads to our final proposition:

*Proposition 3: PPPs are an appropriate governance method to enable developments in such areas as infrastructure, affordable housing and leisure/tourism to take place in developing countries. Such a method, where the right partners are selected, can ensure that sustainable development is both efficient and effective and, hence, best meets the Business, Societal and, later, Natural cases.*

Finally, this paper reports the findings of an exploratory study of one case: the Kingdom of Bahrain. Hence the limitations of the research need to be recognized and no claims of generalizability of the findings beyond the case are made. However the findings make a contribution to knowledge by exploring potential the links between real estate and sustainable development, as conceptualized by one particular developing country. General lessons from the case indicate ways in which the real estate sector can potentially contribute to the achievement of strategies of socio-efficiency and socio-effectiveness as part of sustainable development. Specifically, it highlights the importance of infrastructure, affordable housing, tourism/leisure and public/private/partnerships. It has also enabled a number of propositions to be generated that can inform the direction of further work in this area and test the validity of the findings to other cases.

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### **Author Contributions**

Yusra Mouzughi and David Bryde contributed to the development of the conceptual framework, research design, data analysis and writing of the article. Maher Al-Shaer contributed to research design, case study development, data collection and interpretation. All authors read and approved the final manuscript.

### **Conflicts of Interest**

The authors declare no conflict of interest.

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