













Kingdom of Bahrain

Muharraq Town

Liveable and Prosperous Community 2013

Preface

The International Award for Liveable Communities (LivCom Awards) carried out jointly with United Nations Environmental Program UNEP. The LivCom Awards were launched in 1997 and is the World's only Awards Competition focusing on International Best Practice regarding the management of the local environment. The objective of LivCom is to develop and share International Best Practice, with the further objective of improving the quality of life of individual citizens through the creation of 'liveable communities'. Since 2007 UNEP has collaborated with the LivCom Awards, when a Memorandum of Understanding was signed between the two Organizations. LivCom is non-political, embracing all nations and cultures, and over 50 countries have been represented within the Awards.

Each year communities that have met at the Finals of The LivCom Awards have exchanged Best Practice and practical experience and have joined forces to address mutual challenges. These partnerships have inevitably led to mutual technical advances and more effective use of resources, including finance, and the improvement of the quality of life within a community. The LivCom Awards are the only forum in which International Best Practice may be observed and developed, and participation in the Awards is an investment in the future of a community.

The Awards are in three types: Whole Town Awards, Project Awards, and Bursary Awards. Set of regulations and criteria have been introduced as well as judging criteria. Communities of different sizes and in different cultures have different structures and responsibilities.

Muharraq Town is gifted with a large diversity of economic activities by virtue of its geographical location and historical value of the town. This historical fortunate position has been very influential on the country's community activities. In the last two decades, the town has witnessed a very active process to revive and safeguard heritage, as well as enhance the quality of life for the inhabitant, by building parks and gardens within its neighborhoods as much as possible. Generally, the life style of Muharraq community can be described as tolerant and supportive to each other, as well as friendly; expatriates consume 12% of Muharraq's inhabitant from over 90 nationalities.

This booklet is a synopsis from Muharraq Town's report which highlights the best practices onto ensuring a sustainable environmental community in Bahrain, with Muharraq chosen as the town to showcase such efforts and how it became a truly livable community. Muharraq Town has reached the final which will take place at Xiamen, China (28th November - 2nd December, 2013).

Falah Al Kubaisy, Ph.D.

Development Advisor, Ministry of Municipalities Affairs and Urban Planning Kingdom of Bahrain

Muharraq Town: Livable and Prosperous Community

Executive Summary:

Introduction: This report highlights the best practices onto ensuring a sustainable environmental community in Bahrain, with Muharraq chosen as the town to showcase such efforts and how it became a truly livable community.

The choice follows the importance of Muharraq as a geographical and historical location (Figure 1), which has influenced its present community activities as well as initiatives to safeguard its heritage and unique landscapes. The lifestyle of the Muharraq community can be described as tolerant, supportive and friendly, where expatriates from over 90 nationalities live constituting 12% of its inhabitants.

This summary will briefly highlight the main points found in each of the six criteria.

Enhancement of the Natural and Built Landscapes: The island's simple topography and lack of rain or running water courses created a challenge in terms of enhancing the natural and built landscapes. However, the introduction of recycled and treated water allowed the expansion of green areas (Figure 2)- resulting in a square meter per capita ratio higher than the whole of the Kingdom (0.5 square meters per capita) with future strategic plans aiming to increase this to 1.25 square meters in 2015.

Further, despite the challenges mentioned, with added scartown of land, the government designated certain islands near Muharraq to be protected areas to sustain its biodiversity and safeguard pearls that made the history of the town.

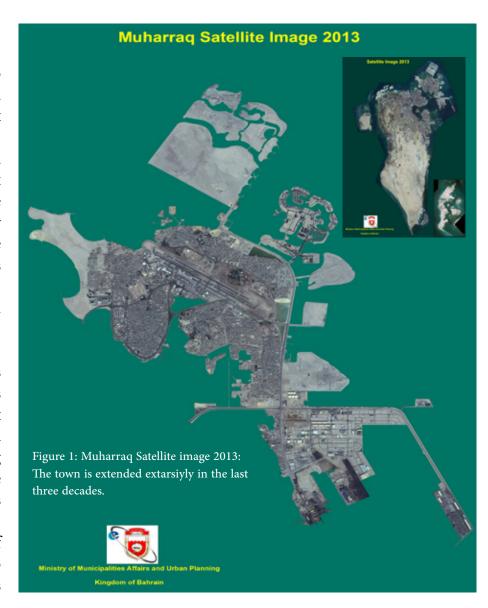




Figure 2: Recycled and treated water used for irrigation of all Landscape in Muharraq.

Arts, Culture and Heritage: In the past two centuries, Bahrain has become largely cosmopolitan, hosting people from a variety of cultures and countries. Muharraq's heritage is no different to this cosmopolitan nature. This was seen as a vital component that represents its livable community and had been from early on safeguarded with projects undertaken by the Ministry of Culture. Plans that consider historical neighborhoods and allow the old and new to mingle in harmony have been introduced, showcasing the uniqueness of the town and its culture (Figure 3).

Environmental Best Practices: Various initiatives were introduced to ensure not only the implementation of environmental practices but the encouragement of innovative solutions by present establishments in the town.

Bahrain Green Awards is one such initiative which contributes to those organizations who are working to make a difference for



Figure 3: Muharraq Community have passion of traditional songs and dance.

the environment. The establishment of Bahrain International Investment Park (BIIP) in Muharraq was done so with regulations that only allow companies which have environmental friendly plans to be part of the park.

Additionally, the development of the Sewage Treatment Plant and Sewer Conveyance System Project in Muharraq, on a Build, Own and Operate model, became unique as one of the best practices used for the second time in the region. Furthermore, the joint community participation was emphasized in the building of the Dohat Arad Bay Protectorate Area (Figure 4), which signifies the possibility for environmental conversation areas to exist closely with urban development that includes a walkway, shops and recreational activities as well as a place for wildlife such as birds and marine life to co-exist.



Figure 4: Arad Bay Project: This project shows a process of transforming the neglected bay into a clean natural park for marine plants, fish and migratory birds.

Community Participation and Empowerment: The town had witnessed the participation of the government and public in planning and implementing projects that ensure sustainable environment, including creation and maintenance of public gardens and spreading awareness on people's roles in safeguarding their green spaces.

In terms of empowerment, various initiatives have allowed business development of individuals as well as empowering women, which resulted in 34.3% of women represented in the labor force. This is the highest rate in the region and approximates that of the European Union countries.

Another example is the creation of Public-Private partnerships for employment empowerment (Figure 5), established recently as part of Bahrain's national reform initiatives and Bahrain Economic Vision 2030.



Figure 5: Two bridges connect adjacent neighborhoods across highway in Muharraq donated by private sector.

Healthy Lifestyle: The UN Millennium Development Goals were the strategic platform to assess Muharraq's quality of life. From free-of-charge health and education services to poverty eradication programs, the country reflects means of a healthy lifestyle. Moreover, it has created strategies to provide an integrated framework for development to meet needs through Bahrain National School Health Program (BNSHP). Introducing the Healthy Living Program, Lose Weight and Dilmunia Health Project were among such strategies.

Strategic Planning: Muharraq's current prosperity is not the only evidence of it being an example for livable communities, but it is also seen in the structured strategic plans outlined to ensure the continuation and development of such a community. It takes an integrated development approach to the Bahrain's 2030 National Planning and Development Strategy (NPDS-1), aiming to broadly cover a period of 20 years.



Muharraq Town

Liveable and Prosperous Community



Content

Criteria and Key Issues Govern the Prosperity of Muharraq City Introduction:

- 1. Enhancement of the Natural and Built Landscapes
- 2. Arts, Culture and Heritage
- 3. Environmental Best Practices
- 4. Community Participation and Empowerment
- 5. Healthy Lifestyle
- 6. Strategic Planning



Muharraq Town Liveable and Prosperous Community

Introduction: Muharraq town is gifted with a large diversity of economic activities by virtue of its geographical location and historical value of the town. This historical fortunate position has been very influential on the country's community activities. Culturally, the people of Muharraq are conservatives in nature to their Arab and Muslim customs and habits. The population of Muharraq is 189,114 inhabitants who represent 14.3% of the Kingdom's total population in Bahrain. The impact of the land-use on the environment has been taken into account in the enforcement of urban planning settings within all the regions of Bahrain. Urban requisites in planning have been set to reduce environmental damage related to land-use. Assessing Muharraq's quality of life is based on the review of what has been accomplished in meeting the UN Millennium Development Goals.

The livable community of Muharraq has a prominent impact on the urban and economic development of the province and on the role it has been playing in the past and present of the Kingdom's economic life which comprises many modern economic plants, handicrafts and traditional industries. The town also endowed with a cultural significance as the Kingdom's historical capital town comprises both *Abu Maher* and *Arad* historical fortresses.

In the last few years, the town has witnessed a very active process to revive heritage, as well as safeguard traditional houses and buildings many of which are dated back to the end of the nineteenth century and early twentieth century. Generally, the life style of Muharraq community can be described as tolerant and supportive to each other, as well as friendly; expatriates consume 12% of Muharraq's inhabitant from over 70 nationalities.

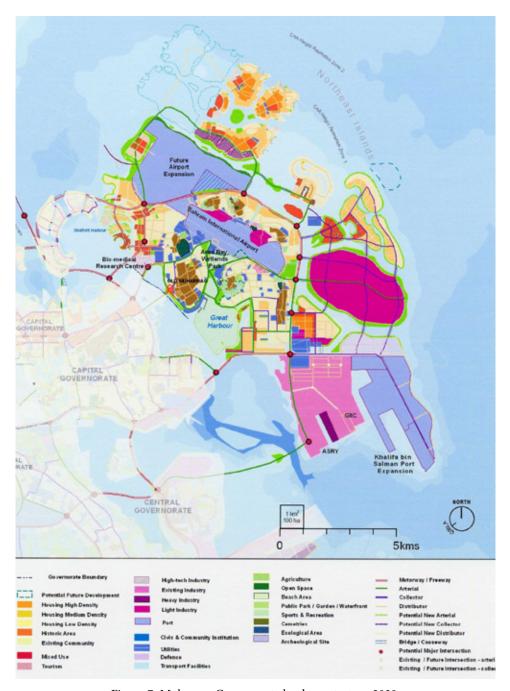


Figure 7: Muharraq Governorate land use strategy 2030.

1. Enhancement of the Natural and Built Landscapes:

1.1. Topography and Inhabitant: The surface of Muharraq is characterized by its simple topography and entails features with undulations with mean heights ranging from 1.5 to 2.5 meters - seldom witnessing sea level rise occurrences to more than 5 meters in general. An environment with little rain and no running water courses or flowing valleys, at a level where the coasts are impacted by sea water during high tidal movements; leaving behind salt content-spots and tidal wet lands. The inhabitants of Muharraq province are distributed over villages and neighborhoods close to the traditional town 'Muharraq'. Due to the urbanization expansion, the surrounding villages have gradually become dwelling suburbs of the town.

1.2. Green Area: As for livability in Muharraq town, green zoning has become among the priority objectives in recent local town plans. Due to the scartown of land and space in the islands

of Bahrain, green areas, parks and public gardens were few in previous plans. This is helped by the type of unsuitable soil and scartown of rain.

The per capita share of gardens and parks has drastically lessened. However, as recycled and treated water was provided for usage few years back, Muharraq's municipality was able to expand green areas and roadside planting. Main streets have been planted in the middle and on both-sides resulting in the small number of gardens and parks in urban areas with currently 0.5 square meter per capita ratio, a ratio higher than that of the whole Kingdom with 0.3 square meters per capita in gardens and parks.

Implemented as part of the municipality urban development strategic plan and supported by the two strategic initiatives which are set by the municipality ministry for the increase of green spaces and general coastal beaches, new projects in Muharraq will increase the per capita share of inhabitants in gardens and



Figure 8: Transition of Muharraq area from 1919 - 2009. Source: IT Department Ministry of Municipalities Affairs and Urban Planning; Bahrain.



Figure 9: Arad Bay Protectorate Area Project: consists of a 3 Km walkway, parks, and 2 crossing bridges (Sustainable Scenery for Community).

parks and will reach 1.25 square meters in 2015 - an acceptable rate for a country that lacks freshwater and with very limited rainfalls. Despite land and water scartown, intensive efforts have been made by municipal authorities to recover green areas through increasing the number of parks, gardens, walk ways, and sport site facilities.

Management of the built landscape, streetscaping, street furniture, public art, constructed parks, gardens and squares are considered in a holistic manner, which shape the philosophy of management of the community. Landscape types and management practices are the result of an evaluation process that embraces the views of the public; green areas and community facilities in the town have been doubled in the last decade.

1.3. Sustainability Context: The natural and built landscape is the fundamental criterion of sustainability and visibility within the wider range of Muharraq community's policies which are related to the preservation, creation and management of a sustainable society. Sustainability within this context is demonstrated by the past, present and future condition of landscapes and heritage which are developed for the creation of a liveable community. Due to the compactness of the urban structure in the traditional town of Muharraq - a town unique in its social and physical existence; and despite the scartown of land and shortage of sweet water for cultivation and landscape; Muharraq community has flourished to implement a green policy and strategy for every land available to the public. These policies have contributed to the sustainability of a community, and are the tools and infrastructure that managed to produce a sustainable countryside for community policies - especially close to the waterfront.



Figure 10: Different ethnic groups celebrating the Heritage Festival in Muharraq.

In order to keep the liveable community retained close to its roots and traditional practice, where place and memory of sea and fishing life are precious to the community; the municipality council has granted the wishes of the public to renovate the fishery ports in Muharraq and protect the large protectorate area.

In respect to the natural landscape, Bahrain's National Development Planning Strategy (NDPS) has stated that several islands - which are close to Muharraq town should be left as protectorate areas to contain their biodiversity, indigenous planting, and unique psyches (see Hawar Islands in Figure 1), as well as revive a large area of the sea to designate it for the purpose of cultivating a natural pearl. Noteworthy, Bahrain was number one in pearl production.

2. Arts, Culture and Heritage:

Muharraq is rich in its heritage and full of cultural activities such as art, craftsmanship, and folk dance. Bahrain's culture is as old as Enki the Sumerian water god, who thousands of years ago chanted "Let the town of Dilmun become the port for the whole world."

In the eighth century B.C., Dilmun was a vassal of Assyria and by 600B.C. Dilmun was part of the Neo-Babylonian Empire. Dilmun is believed to have been the location of the Garden of Eden and was described as paradise in the Epic of Gilgamesh. *Tarafah ibn al 'Abd (549AD) was Bahrain's first recorded poet*.

"Bahrain - formerly known as Dilmun was a historical trading port. Ancient Indus Valley and Mesopotamian traders arrived in Dilmun to trade copper and returned home with Dilmun seals featuring stylized animals and feasting gods. Kassites [Babylonia], Assyrian, Greek, Parthian and Portuguese invaders in turn built their settlements and contributed to the island's growing encyclopedia of pottery and artifacts".

The culture of Bahrain is predominantly Arabic and Islamic. It is similar to that of its neighbors in the Gulf region. In the past two centuries, Bahrain had become largely cosmopolitan, hosting people from a variety of places such as India, Pakistan, Iran, Egypt, Malaysia and England. Though the main country's religion is Islam, it is also open towards other religions; Catholic and Orthodox churches, Hindu temples as well as Jewish synagogue are present on the island.

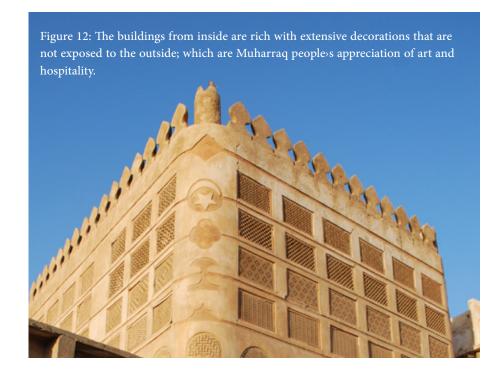
2.1. Muharraq Historical Background: The people of Bahrain were among the first Arab communities outside Mecca and Medina to embrace Islam. The history of Bahrain during the 16th, 17th and early 18th centuries reflects the ongoing struggle between the maritime powers for the control of the Indian Ocean trade. In 1521, it was occupied by the Portuguese; and during the opening years of the 19th century, Omanis built the fort of *Arad* on Muharraq Island, east of the old town. During the 19th century, Bahrain became the chief center of pearl trading which continued until the 1930's. At the beginning of the last century,

Muharraq was the capital of Bahrain and the center of major public and governmental projects.

With the discovery of oil during the 1930s and the demised of the pearling industry, Muharraq began to draw its importance from craftsmanship and heritage tourism. The authorities have decided to invest resources to revitalize its culture and heritage, as they realized that it represents a fact of Bahrain's past which is too vital to disappear.



Figure 11: Folk dance of Muharraq.



2.2. Conserving the Architecture Heritage of Muharraq: Stylistically, the old town of Muharraq belongs to a rich heritage with its built morphology as low rise, high density town, which are the product of two sets of cultural influences, namely the religion of Islam and tribal solidarity.

The establishment of conservation zones of the historic Muharraq and traditional neighborhoods in the Kingdom responds to an approach to urban planning and development that considers the historic town and its neighborhoods; not simply as a legacy of the past but as a heritage to be preserved for future generations.

To revitalize the traditional historic sectors of Muharraq's community through re-use, conservation, and maintaining the town's fabric the sense of place; it is necessary to establish systems

and regulations of the urban renewal. The approach for control, management and coding for built environment in the traditional sectors of Muharraq suggested by the local authority is based on creating a contemporary version of the traditional roots that created those areas in the first place.

2.4. Music, Dance, Theatre and Fine Arts: Muharraq is famous for poets, artists and sculptures who regularly win local and regional awards related to various types of arts. Arts include reciting of the Quran, ceremonial dances accompanied by flat drums, and poetic verses. Births and marriages call for wide-scale celebrations in Bahrain, which are often a pleasure to take part in. Apart from this, the people of Bahrain are also known for their artistic skills; the boats used for fishing and pearling, are examples of such craftsmanship. Nowadays, Muharraq is specialized in all sorts of craftsmanship - particularly in the art of precious jewelry (internationally known for its quality, size and value).

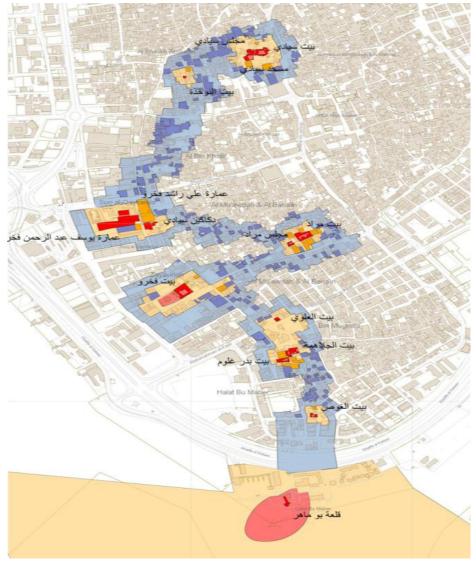


Figure 13: one of the largest conservation projects in Muharraq is under development by the Ministry of Culture. Aligning with the NPDS and Muharraq guiding concepts and principles, this project is one of the most important priority areas that facilitate area connectivity and mobility in regards to heritage. The plan creates pedestrian zones and links within the old area that preserves and enhances the distinctive character of the urban heritage. This project was submitted to UN -UNESCO to be recognized as a <World Heritage Site>. Ref.: Ministry of Culture, Bahrain.



Figure 14: Work of Rashid Al Oraifi, famous artist and sculpture and founder of the traditional museum. His mission is to educate and inform, by displaying Dilmon sculptures and artifacts as well as creating art inspired by this era.



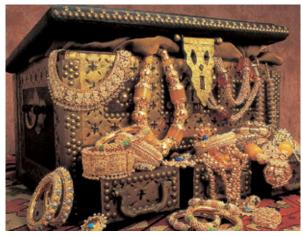


Figure 15: High quality of precious metal jewels and natural pearls are part of Bahraini economic and tradition.



Figure 16: Profitable handcraft of traditional boats in Muharraq.



Figure 17: Families enjoying the heritage and contemporary art in Muharraq.

3. Environmental Best Practices:

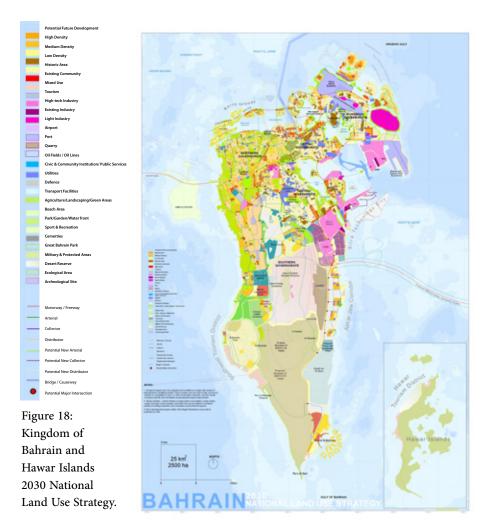
The Public Commission for the Protection of Marine Resources, Environment and Wildlife (PMEW) is a governmental body responsible to every issue related to the environment in Bahrain. PMEW assists the government of Bahrain with the conservation and management of natural environments and resources, wildlife and bio-diversity in the Kingdom. This is initiated through conducting scientific studies, developing plans for the future, sustaining development, promoting environmental awareness and developing clear strategies.

Best practices are a feature of accredited management standards such as ISO9000 and ISO14001. Up to April 2013, over 300 companies and enterprises have certified as ISO9000 and ISO14001 in Bahrain; Muharraq has 88 alone, which are located at Bahrain International Investment Park (BIIP). These large enterprises cannot be located there unless it is environment-friendly. This is done by providing sustainable development policies, such as waste management, water conservation and reduction, air quality, energy conservation and conversion programs for efficient lighting and reduction of light pollution.

In recent years, public agencies and NGOs have been exploring and adopting best practices when delivering environment, health and human services. In these settings, and in this context, the use of the term **«best practices»** is often used interchangeably; several best practice and environmental initiatives have been carrying out in Muharraq town; large or small initiatives, namely:

3.1. National Development Planning Strategy: It is quite apparent that NDPS has several initiatives that includes large pre-determined areas which are reserved lands intended for environment, heritage and archeological purposes. They are:

Large areas of natural reserve lands such as Hawar Isles that are up to 63.7 square kilometers rating 8.4% of Bahrain's area; another large area is in the open sea designated to cultivate natural pearls in the Arabian Gulf.



The integration of land use and transport strategy with the concept of live work and play provides benefits to the residents for shorter travel time and better mobility. The reduction of trip generation reduces the proportion of journeys made by car and increases the proportion by walking, cycling or by using public transportation.

It is a very important strategy adopted in Muharraq and the entire Kingdom as a whole to ensure that the plan is structured and planned in such a way that the need for private vehicle travel is minimized. Wherever possible new developments have been initiated to ensure integration of service requirements in proximity to the catchment area.

Facilitation of live-work and play integration shortens travel time that reduces vehicular movement; thus, reducing gas emissions and improving air quality. Initiatives from UK under the Prosperity Fund have been launched as a project that provides opportunities for the Kingdom to reduce energy intensity and CO2 emission for the first time.

3.2. Signature Bahrain: This environmental practice has initiated a movement to support those organizations and individuals who are making a difference in Bahrain's environment. Bahrain Green Awards was created as a platform to showcase green initiatives in order to inspire and stimulate others for the benefit of the environment locally, regionally and globally. Even though it is a contribution to the cause, the awards require collective efforts and active participation of Bahrain's business community to sustain and make it a national success.



Figure 19: Two bridges connect adjacent neighborhoods across a highway donated by private sector in Muharraq.



3.3. Bahrain International Investment Park: Similar to Free Zones, Bahrain enjoys duty free imports of raw materials and equipment for manufacturing. Under legislation, products manufactured in Free Zone markets are free of import duties and no custom duties when sold in Arab markets. Incentives are provided by BIIP to any successful initiative that has evident and tangible impact on improving people's quality of life and are the result of effective partnerships between the public, private and civic sectors of the society; which are also socially, culturally, economically and environmentally sustainable.



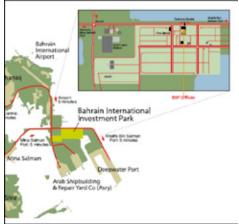


Figure 20: Photo and Plan illustrating Khalifa Wharf, Industrial and Investment Zone in Muharrag.

3.4. Development of Dohat Arad Bay Protectorate Area Project: The development of the existing Dohat Arad area includes landscaping, creating a public walkway 3km. long with additional ancillary and recreational facilities, such as playgrounds, medical facility shops, pedestrian bridges, parking, amenities, lighting and other related services.



Figure 21: A view of one of the environmental best practice in converting a neglected site to a relaxing and health life style area.

The project led Bahrain to having a unique landscape architecture and conservation design public park project. The site measures 30 acres land around picturesque 100 acres of bay sea water, for public recreation and marine ecosystem conservation project completed in 2011. The aim of the project was to turn the bay into a natural park for marine plants, fish, prawns and migratory birds.

The project generated high cooperation between various agencies and active support of the community. The cost of the two bridges (as seen above Figure 11), which connect adjacent neighborhoods across a highway, was donated by private companies in Muharraq.

3.5. Development of Sewage Treatment Plant and Sewer Conveyance System Project at Muharraq;

(On a Build, Own, and Operate Model)

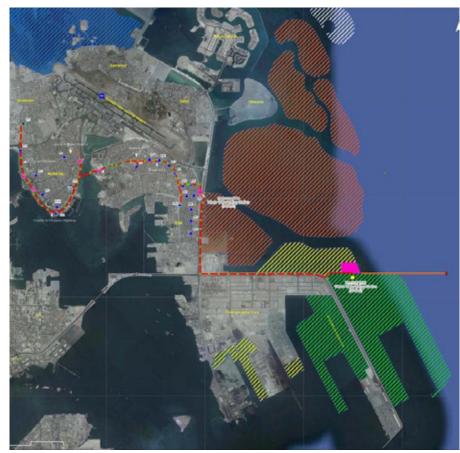


Figure 22: Muharraq Sewage Treatment Plant and Sewer Conveyance Project on a 'Build, Own and Operate Basis' System.

The Muharraq sewage treatment plant reinforces and is in line with Bahrain 2030 National Plan and Environmental strategy for Muharraq town. Land use or planning impacts associated with the construction or operation of the proposed Muharraq sewage treatment plant are addressed in the appropriate sections of the environmental evaluation report, including management and

monitoring requirements. The sewage treatment plant has been designed to treat up to 100,000 m³ of raw sewage per day with room for expansion to treat up to 160,000m³ per day.

The project uses high technology in its construction and investment; it also includes an evaluation of the potential environmental impacts associated with the construction and operation of the proposed sewage treatment plant and associated infrastructure. This project takes its uniqueness as being one of the best practices used for the second time in the region; delivering the project on a \(\)build, own and operate \(\) model.

4. Community Participation and Empowerment:

The ongoing effort to empower people to create positive social change is clearly articulated in the work of Muharraq community. Whether effectively organizing the voices of private citizens and expatriates or by making people realize that contributing to society also benefits the self, social entrepreneurs are empowering a culture of participation.

4.1. Public participation: Series of meetings had been set for public participation to review the National Development Strategy Plan for Muharraq, as well as in cooperation with Muharraq's Municipality Council and several NGOs which have examined, reviewed and approved the plan with its technical reports regarding the sustainable environment. Community participation took place with members of municipal councilors of each area to ensure the participation in the maintenance of each garden and facility provided by the municipality within the neighborhoods. The community would maintain and preserve the gardens as well as ensure that there is feedback from one of the measures taken to keep these gardens in a civilized style.

26

Since last decade NGOs have been active in promoting awareness in the field of sustainable environment and labor sector in a non-discriminatory, non-political and non-profit making manner. NGOs are widely recognized in Muharraq's community as a leading impartial corporate sector group.

4.2. Creating Public-Private Partnerships:

Tamkeen (Empowerment) was established in August, 2006, as part of Bahrain's national reform initiatives and Bahrain Economic Vision 2030. One of Tamkeen's objectives is to support Bahrain's private sector and positioning it as the key driver of economic development. Tamkeen's two primary objectives are to foster the creation and development of enterprises, as well as provide support to enhance the productivity and growth of enterprises along with individuals by supporting business owners and existing employees in leadership and employment rules of enterprises through enhancing their competencies in the areas of work and leadership.

Figure 23: Community participation approving traditional area in Muharrq.

Other governmental development banks are bringing economic opportunities and social developments to marginalized townships by transforming existing small businesses into successful enterprises that also serve as delivery networks for a variety of community services. Development banks with zero interest give neighborhood entrepreneurs the expertise and resources they need to expand their operations; for instance from one -stop shop to real commercial enterprises.

4.3. Women's Empowerment: The role of women in Muharraq can be determined by examining their activities in all sectors of the society. Traditions and laws do not primarily hold women back from their full participation in the nation's economy and politics. Discrimination that has carried forward into the constitution of the land was caused by adherence to historical remnants of the society that does not actually exist any longer.



Figure 24: Capatown- Building Workshop by Tamkeen and Civil Service Bureau to empower women in Muharraq committee.

Women's freedom to enter the public sphere reflects to a large extent the nature of the political and social system of a country, and their equal access to political processes reflects the principles of social justice in the society. Women and political participation in Bahrain was essentially the recognition by Bahraini society of the role women played and are still playing in the social and economic life.

Bahrain constitution promotes equal rights for all people, particularly women, to the full social, economic, and political spheres of the country. Both the government and the private sector have shown a dramatic increase in the numbers of women employed in the last decade. Bahraini women accounted for 34.3% of the total labor force recorded in the Civil Service Bureau. This is the highest rate in the GCC countries, and approximates that of the European Union countries.

5. Healthy Lifestyle:

The Vision of the Ministry of Health in Bahrain states that "All population have access to quality health care throughout life time".



Figure 25: King Hamad University Hospital built recently to provide advanced research facilities in Muharrag.

The medical system in Bahrain is characterized by the intensive use of high technology hospitals and medical centers equipment. Bahrain is a multi-national Kingdom with many organizations that offer vast selections of health services and products to the public. Most of these organizations are of high quality and standards which provide authentic advices and remedies wherever and whenever required.

Bahrain is a country with a small population and limited resources, the Kingdom's welfare and social policies offer free of charge access for everyone, core basic services of health and education, in addition to other socially related-policies such as easy-installments or free housing policy in some cases, social welfare services and soft loans. The country's health system promotes holistic lifestyle practices that make a positive difference in one's day-to-day living. The goal of the health authority is to educate the residents of Bahrain to live a good and healthy life.

Quality of life in Bahrain means achieving high-level of human development. Assessing the quality of life in Muharraq will be based on the review of what has been accomplished in meeting the UN Millennium Development Goals. More importantly, economic and social data as well as survey findings have been extensively set, showing that there are currently no meager income problems that exist or what is referred to as extreme poverty. This is achieved by government efforts and the poverty eradication programs which were initiated in the previous decade for every segment in the society. The free for all health care and education services, through the state's social welfare services, include productive families or 'Youth Employment' programmers - identified as *Tamkeen* (Empowerment).

The health authority has issued a series of policy directives that reflects a more comprehensive, integrated, responsive and collaborative partnership approach to the population's health delivered through a National Health Plan that incorporates a shift in program emphasis from acute care interventions to community-based programs of health promotions and preventions. The Ministry of Education has embraced such policy direction and its applicability to challenges in education along with the urgent need for a National School Health Program.

Several high-level strategies have been identified for the Ministry of Health to more effectively meet the needs of the youth and their families. Focusing on these strategic directions will enable the government and communities to contribute to healthy development across a lifespan. In Bahrain, numerous appropriate researches were carried out in many issues on Bahrain National Health Program (BNHP); such as:

A-Bahrain National School Health Program BNSHP: The purpose of this program is to define the policy direction, objectives and standards that will guide the development of a comprehensive program for Bahrain and provide the framework for a collaborative, integrated development of services between the government, communities, health professionals, private sector agencies, individuals and groups. For instance, students, teachers, parents, and families, and support groups; this includes:

- **1** BNSHP: strategy and policy direction (objectives, guidelines and standards).
- 2- The challenge for children and adolescents.

B- Healthy and Active Lifestyle:

1- Healthy Living Program: This program is directed to women to supply them with the best practices and tools that will help them maintain a healthy life – emotionally, mentally and physically. Working in an alignment with Michelle Obama's anti-obesity campaign 'Let's Move', participants will learn the nutrition and benefits of an active lifestyle.



Figure 26: Cooperation between the Ministry of Health and Ministry of Municipalities Affairs and Urban Planning provides walkways in different areas in Muharraq.

- 2- Lose Weight, Begin a Fresh Start: A campaign established by the community to offer advices via Smartphones on daily and weekly basis in order to obtain a healthy slimming habit and receive health benefits such as attain better concentration, more energy and kick starts metabolism.
- 3- Dilmunia Health Project: A underway visionary project to be allocated in Muharraq; acquiring a large land plot, this island is one of the Kingdom's largest coastal development projects. Dilmunia offers its residents and visitors an alternative perspective towards life. It is being specifically designed to enhance and promote the concept of well-being. These investment opportunities within the health sector meet community vision in new projects towards suitable environment and quality of life.



Figure 27: Manmade Island of 125 hectares and a cost of \$1.6bn, Dilmunia Health Island Project were officially launched off Muharraq's North East coast.

6. Strategic Planning:

A governorate that is defined by unique island clusters and distinct historic communities, Muharraq houses Bahrain International Airport and Khalifa bin Salman Port. It is emerging as a major industrial employment center and a distinguished collection of high-quality island neighborhoods. It is also a home of nearly 190,000 inhabitants with an area of over 59 Sq.Km. The population's figure is projected of becoming 384,000 in 2030. The Muharraq Governorate Structural Plan aims to broadly cover a period of 20 years and take an integrated development approach to the Bahrain National Vision of sustainability, competitiveness and fairness, as well as outlining strategies in the various sectors of development.

- **6.1 Development Vision:** The vision is to create a governorate that enhances and safeguards Muharraq as the cultural, economic portal and gateway to Bahrain. It would serve as the country's front-door to the international community which is capable of elevating its status and image to the world as a progressive nation while balancing modernity and cultural sensitivity with its communities.
- **6.2. Hierarchy of Plans:** Overview of the current plan making and the implementation sequence in the Kingdom:
- Bahrain's 2030 National Planning and Development Strategy (NPDS-1) with the initiative of Bahrain Economic Development Board and other governmental agencies managed the preparations of the plan which was approved by the cabinet in 2007. Currently serving as the framework plan guiding development for the entire Kingdom.

- In 2010, the NPDS-2 study was commissioned to provide series of tools in order to take forward the original Planning Development Strategy 2007. The Ministry of Municipalities Affairs and Urban Planning carried-out the down-streaming of the NPDS to regional and governorate level of the five Governorate Structural Plans 2030.
- These plans will be updated every five years. Some of the Governorate Structural Plans have been produced and the rest is presently being undertaken. These plans highlight development parameters from governorate down to priority areas (local level).
- Provides development guidance for the realization of the vision, preservation of historical heritage areas, identification of priority areas and projects, identification of social and physical infrastructure requirements, identification of densities, integration of land-use and transportation, layers of major and minor nodes along with inter-connectivity links.
- An economic clustering guideline has been introduced to harness the existing and potential assets of the areas. Lastly, the structural plan outlines phasing of specific programs and projects for implementation. These programs are subject to annual review to monitor the implementation of the plans. The governorate structural plan guides the next level which is the master planning of the priority areas.
- The detailed planning comes at the last level.





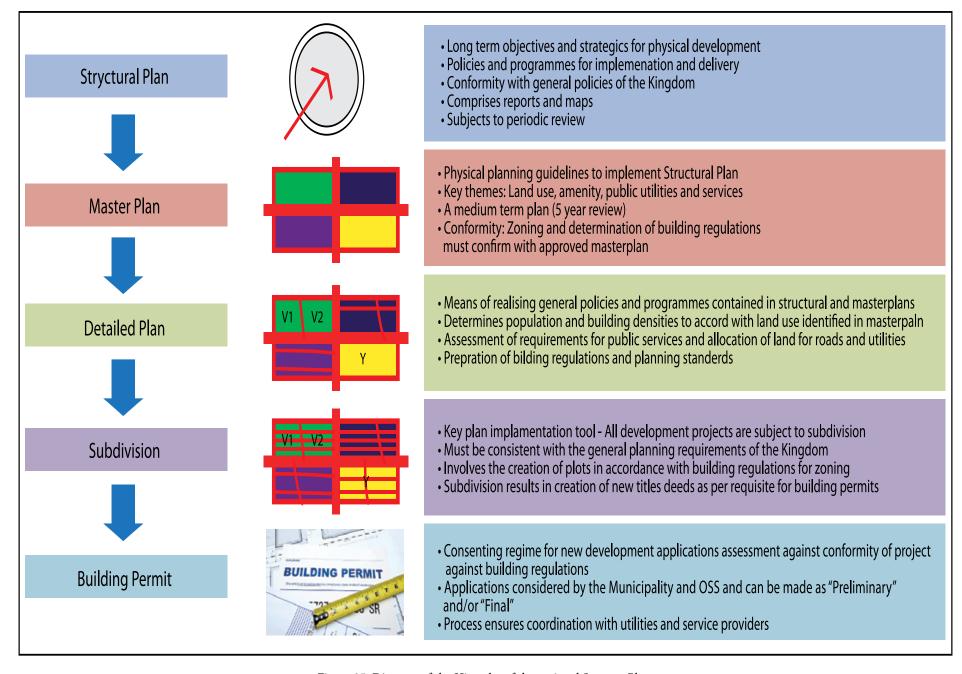
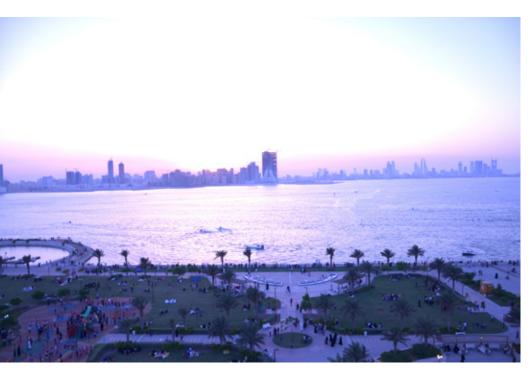


Figure 25: Diagram of the Hierarchy of the national Strategy Plan.







The International Awards for Liveable Communities 2013: Whole City





