





IMPLEMENTING
THE NEW
URBAN AGENDA

### Kingdom of Bahrain National Report

Achieved Progress in the Implementation of the New Urban Agenda (NUA)







His Majesty **King Hamad bin Isa Al Khalifa**Kingdom of Bahrain Monarch



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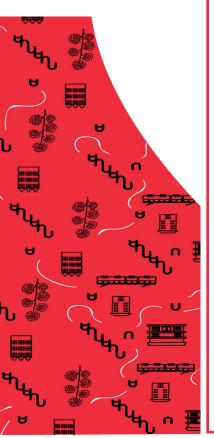
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### Kingdom of Bahrain National Report





## Foreword by HRH Prince Salman bin Hamad Al Khalifa The Crown Prince and Prime Minister

The Kingdom of Bahrain has a distinguished and long history that dates back to ancient times, gifting a legacy of values we have proudly inherited and continue to instill in each generation to provide the best that is sought by all.

Today's citizens are partners in a construction and development process that is building our bright future, in line with the vision and aspirations of His Majesty King Hamad bin Isa Al Khalifa.

The praiseworthy contributions made by Bahrainis across many sectors have made possible further developmental progress, most notable of all being the implementation of the New Urban Agenda (NUA), one of the main pillars of the Government Action plan, shaping human development in accordance with the Kingdom of Bahrain's Economic Vision 2030 principles of sustainability, competitiveness and fairness.

At an international level, we rightly take pride in the fact that the Kingdom of Bahrain is one of the leading nations in achieving the UN's sustainable development goals (SDGs) through its active international contribution to development, whilst ensuring that Bahraini citizens remain at the core of the Kingdom's comprehensive development. The Kingdom's Government Priorities Framework is investing in Bahraini citizens through educational advancement, development of sustainable health services, and the formulation of innovative housing and infrastructure solutions, all designed to accelerate development and progress.

Through "Team Bahrain", across its many sectors, major development projects have been implemented and completed, and these successes have enhanced the Kingdom's international standing.

Despite the impact of the global Covid-19 pandemic on various aspects of work and life, it motivated the Kingdom of Bahrain to meet unprecedented challenges with a sense of purpose and collective spirit that clearly presented the character and potential of the Kingdom and its people.

Moreover, the Kingdom of Bahrain has created many new opportunities for innovation and creativity in achieving sustainable growth, through technological transformation and technology use across a wide range of sectors.

Lastly, we reaffirm the Kingdom of Bahrain's support for international action and cooperation

in achieving the sustainable development goals and the New Urban Agenda. It is important that there continues to be international focus on optimizing resources, formulating policies, preparing plans, and ensuring that service delivery meets the highest standards of quality and efficiency. The next phase of progress, however, requires enhanced comprehensive development policies and the continued implementation of urban plans in cooperation with the United Nations Human Settlements Programme (UN-Habitat), which provides significant support services to the international community and in particular to developing countries.



Key Messages from the Foreword by
His Royal Highness Prince
Salman bin Hamad Al Khalifa
The Crown Prince and Prime Minister





Bahrain has a distinguished and long history that dates back to ancient times, gifting a legacy of values we have proudly inherited and continue to instill in each generation to provide the best that is sought by all.



The citizens of this country are partners in a construction and development process that is building a bright future, in line with the vision and aspirations of His Majesty the King.



The New Urban Agenda is one of the Government Action Plan's main areas of focus shaping human development in accordance with the Kingdom of Bahrain's Economic Vision 2030 principles of sustainability, competitiveness and fairness



Bahrain is one of the leading nations in achieving the Sustainable Development Goals (SDGs) 2030.



The priorities of government work in Bahrain are based on investing in people through education, healthcare, housing services and others.



"Team Bahrain" contributed to the successful implementation of development projects that have enhanced Bahrain's international standing.



The Coronavirus pandemic motivated Bahrain to meet unprecedented challenges in a way that showed the positive character and potential of the Kingdom and its people.



Bahrain enhanced development policies by continuing to implement urban plans in cooperation with the UN-Habitat Programme.



Over the past years, the Kingdom of Bahrain has been able to achieve substantial developments and many successes in the implementation of the sustainable development goals (SDGs) 2030, and urban development goals in particular, as the Kingdom has been one of the leading countries in fulfilling most of these goals by including them in government action plans and programmes, with an integrated vision based on the directives of His Majesty King Hamad bin Isa Al Khalifa, King of the Kingdom of Bahrain, the efforts of His Royal Highness Prince Salman bin Hamad Al Khalifa, Crown Prince and Prime Minister, and their belief in the significance of the SDGs, being important pivots on the international agenda, and the importance of the Kingdom of Bahrain's commitment to support them in the interest of the people of Bahrain in particular and humanity in general.

The Kingdom of Bahrain's interest in the SDGs and urban development goals is evident through its active international presence and participation in the initiatives and activities of the relevant international organisations, the holding of countless consultative meetings and discussion forums aimed at enhancing and evaluating urban development achievements and obtaining related feedback thereon across the various governmental executive levels, parliamentary and municipal councils, governorates, private sector institutions, civil society, and academics, for the purpose of exchanging visions and identifying trends and responsibilities.

Moreover, the Kingdom of Bahrain was able to enhance its successes in this regard by implementing the New Urban Agenda (NUA) through developing the experiences it gained in the past decades in the field of sustainable urban development, in addition to enhancing means of benefiting from successful international expertise in this field, and therefore it worked on implementing the sustainable development goals on the ground, on one hand, and promoting societal awareness of the importance of these goals and their positive impact on the local community with its various components, on the other hand.

In a parallel effort, the Kingdom of Bahrain focused on moving the sustainable development and urban development goals from the scope of plans and programmes to be the focus of general societal attention, through referring to them in educational curricula and creating specialised awards that support them, including "The King Hamad Youth Empowerment Award to Achieve the SDGs" launched during the United Nations' Economic and Social Council (ECOSOC) Youth Forum in January 2017. Furthermore, the government is currently working in cooperation with the United Nations Human Settlements Programme (UN-Habitat), to establish the National Urban Observatory, which will serve as a data centre, calculate its various indicators, and facilitate accelerating monitoring, performance and follow-up, while training the national cadres required for this project.

These steps have yielded numerous national initiatives in the sectors of housing, infrastructure, open spaces, transport and communication, energy consumption, waste recycling, and others. Bahrain also has a rich experience in dealing with the spatial variable, by organising space through urban planning and development, in line with its international commitments to the SDGs 2030, Paris Agreement to tackle climate change, Sendai Framework for risk and disaster reduction, and the New Urban Agenda.

This report presents comprehensive monitoring and documentation of the efforts of the Kingdom of Bahrain to achieve the SDGs 2030 and urban development goals, and demonstrates the level of efforts made, and how successful Bahrain has been in fulfilling its commitments despite the major challenge facing the world for nearly two years due to the spread of the novel Coronavirus (Covid-19) pandemic and its effects. In preparing this report, it was taken into account to include

figures, indicators, documents, and papers related to the achievements of the Kingdom of Bahrain in realising the elements of the New Urban Agenda.

"Team Bahrain" working on the report consisted of concerned stakeholders in various ministries, institutions, authorities and official councils at all levels, as the work system witnessed great cooperation and tangible efforts from all these relevant local and official governmental and semi-governmental entities, in addition to various civil society institutions, which constituted an example for partnership in serious and synergistic work to achieve the desired progress in implementing the New Urban Agenda. Therefore, they deserve our utmost thanks and gratitude for their commendable efforts in this manner, and in preparing this report and presenting it in its final and integrated form.

Moreover, we would like to extend our sincere thanks and gratitude to the members of the assigned work team responsible for the preparation of the report, headed by the Director of the Housing Policies and Strategic Planning Directorate at the Ministry of Housing, Shaikha Hessa bint Khalifa bin Ahmed Al Khalifa, and team members; the Advisor to the Prime Minister's Office, Mr. Abdullah Abbas Hamad, Academic Researcher in Bahrain Studies Center - University of Bahrain, Dr. Basiouni Ali AbdulRahman, and from the Ministry of Housing Ms. Maha A.Rahman Al-Mahmood, Ms. Fatima Anwar Malallah, Ms. Hanya Ahmed Sulaiman, Mr. Haitham Sami Kamal, Ms. Jameela Saeed Alnashaba, Mr. Saleh Yousif Ismaeel, and Dr. Atul Vishwas Deshmuk.

Mohammed bin Ebrahim Al Mutawa Minister of Cabinet Affairs Chairman of the National Information Committee



As we speak of housing policies in the Kingdom of Bahrain that work in conjunction with the different policy systems of other government agencies concerned with infrastructure and urban development affairs, we have made great progress today that enabled the Kingdom of Bahrain over the past few years to achieve its goals that are aligned with the Sustainable Development Goals (SDGs) 2030, and the sustainable urban development goals, in particular. Despite

all challenges and obstacles the Coronavirus (Covid-19) pandemic has created, the work on projects and progress in various areas of development did not stop.

In the Kingdom of Bahrain, we made these challenges a priority national goal to enable us to achieve the SDGs 2030, following the sublime directives and visions of His Majesty King Hamad bin Isa Al Khalifa, as well as His Majesty's guidance to develop a comprehensive national plan that secures full readiness to deal with the needs of citizens, and achieve comprehensive urban development at all levels through adopting and employing partnerships with the private sector and civil society institutions in various sectors, via updating and developing housing regulations and policies that keep pace with the needs of the current era, to ensure maximum impact on our national economy as well as on urban development in the Kingdom.

In reality, national endeavours have accelerated with the support of the Kingdom of Bahrain's leadership and government, making the Kingdom one of the leading countries in providing housing solutions and updating its policies constantly, according to an integrated vision for urban development based on the royal directives, and the efforts of His Royal Highness Prince Salman bin Hamad Al Khalifa, Crown Prince and Prime Minister, to implement the New Urban Agenda through benefiting from the experiences gained in past decades.

The rapid response in finding an integrated system of housing policies has borne fruit today, as we present a summary of the hard work in this report to be a comprehensive tributary to the efforts of our Kingdom in achieving both the SDGs 2030 and sustainable urban development goals.

Also, we would like to mark the efforts of the work team from various ministries, institutions, authorities and official councils, in achieving this valuable issuance within a joint system between the Ministry of Housing and all the official entities that have cooperated in preparing this national report that demonstrates and documents the progress achieved in implementing the New Urban Agenda (NUA).

This national report that was prepared with the participation of many government agencies and authorities, in addition to other agencies that had a significant impact on its completion, is nothing but a contribution to moving closer towards achieving the aspired goals. Therefore, our next phase requires our continuous work together under our leadership, and with the solidarity of the esteemed government agencies represented by the Bahrain Team, to increase the work pace and advance development projects, as well as finding comprehensive and creative development initiatives to benefit our country's development renaissance, and leading the national march towards further progress and pioneership.

Basim Bin Yacob Al Hamer Minister of Housing

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## **Key Messages**

#### **Key Messages**



The Kingdom of Bahrain has made countless achievements at the level of the national and international agendas in its endeavour to implement the Sustainable Development Goals (SDGs) 2030 and the urban development goals, in addition to the remarkable progress achieved in implementing the New Urban Agenda (NUA) represented in the major development projects accomplished in all fields, as the Kingdom has been proactive in including them in the government's action plans and programmes through a clear and integrated national vision and strategy based on the directives and support of His Majesty King Hamad bin Isa Al Khalifa, King of the Kingdom of Bahrain and the unremitting efforts of His Royal Highness Prince Salman bin Hamad Al Khalifa, Crown Prince and Prime Minister.

The desire of the venerable leadership and government was manifested in word and deed to achieve these goals in order to keep pace with the international agenda in the areas of development due to its positive impacts at the local level, on the people of the Kingdom of Bahrain in particular, and mankind in general.

The following points summarise the most important efforts and accomplishments achieved by the Kingdom of Bahrain in its journey towards the achievement of the objectives of the New Urban Agenda (NUA):



Disbursement of financial packages that exceeded BD 4.5 billion (USD 11.9 billion) to support the local economy in its various components in response to the repercussions of the Coronavirus pandemic



Population Percentage living below the international poverty line at the national urban level reached "zero"



Income level increased by 47% for Bahraini families in the period (2008-2016)



Bahrain ranked 42<sup>nd</sup> among 189 countries in the Human Development Report (HDR) of the Year 2020 and was classified among the countries with Very High Human Development



Coverage of drinking water networks and the percentage of the population connected to the sewage network reached 100%



Government Programmes, initiatives and investments in the housing sector, amounted to more than BD 3.3 billion (more than USD 8.7 billion) since the establishment of the Ministry of Housing



Women's contribution in the workforce increased to reach 42.8% in the Year 2020



## **Executive Summary**

#### **Executive Summary**



Over the past decades, sustainable urban development matters have been the focus of the Kingdom of Bahrain, as these challenges formed a fertile ground for research and discussion at various levels of decision-making bodies, which resulted in many national initiatives in planning for housing, infrastructure, open spaces, transport and communication, energy consumption, and waste recycling. Not to mention that Bahrain has a rich experience in dealing with the spatial variable by organising places through urban planning and urban development, in line with its international commitments to the Sustainable Development Goals (SDGs) 2030, Paris Agreement to tackle climate change, Sendai Framework for risk and disaster reduction, and the New Urban Agenda. These commitments formed the reference for the Kingdom's orientations towards urban prosperity, social inclusion, sustainability, and resilience.

Despite the enormous effects of the spread of the Corona pandemic (Covid-19) on global development plans and living conditions, the government of the Kingdom of Bahrain has proven its capability to address this pandemic, while maintaining the progress of the sustainable development process. The kingdom, under the directions of His Majesty King Hamad bin Isa Al Khalifa, the Kingdom of Bahrain has disbursed financial packages that exceeded 4.5 billion Bahraini dinars (USD 11.9 billion) so far, in support of the local economy with its various components and enhancement of the ability of citizens and residents to face the repercussions of this predicament by funding the salaries of employees and offering numerous financial exemptions.

The efforts of the Kingdom of Bahrain in the field of achieving the SDGs have continued through a systematic process that included a series of procedures, plans and programmes, in which all official entities participated with the support of civil society, and at the forefront of these goals is the goal of making cities and human settlements inclusive, safe, resilient, and sustainable.

Regarding sustainable urban development efforts for social inclusion and poverty eradication, the Kingdom of Bahrain's government action plans, since 2015, have emphasised the consolidation of a strong and diversified economy and a financial and stable monetary system that contribute to strengthening the country's development process, especially the Government Action Plan (2019-2022) and those related to the implementation of the SDGs 2030 with their economic and financial pivots.

Moreover, the Kingdom's policies focused on increasing the participation of all its residents in the available opportunities, hence improving the distribution of income among the different social groups and improving the quality and kind of life for them, in addition to the care of the Bahraini government for the neediest segments of society by providing foundations of social security through a package of social protection systems and measures, housing programmes, free education, healthcare, basic services, and the provision of allowances for people with disabilities, all of which aim to reduce the percentage of men, women and children with limited income by at least 50% by the Year 2030. It is worth noting that the extreme poverty segment does not exist in the Bahraini society, as the percentage of the population below the line of extreme poverty in the Kingdom is "zero".

As for reducing inequality in urban areas by promoting equal opportunities and benefits, the legislations, laws and regulations have worked to enhance and increase opportunities and enrich benefits, in addition to dividing them between all citizens without the slightest ethnic, religious, social, or gender discrimination.

At the level of women's economic empowerment, women's contribution to the workforce has increased, as they assumed various public and educational jobs, in which they constituted the vast majority, along with judicial jobs, jobs in the diplomatic corps, executive and specialised jobs in the public and private sectors, and major ministerial positions, in addition to their work in the field of entrepreneurship, as their share of individual commercial records amounted to about 42% of the total commercial records in the first half of the Year 2020.

Furthermore, the data indicates that the percentage of women's participation in non-governmental organisations as active members is 16% of the total members, and that their participation in decision-making centres as members of the board of directors is 17% of the total members of boards of directors.

On the level of youth, the Kingdom developed the National Youth Strategy 2005, in cooperation with the United Nations Development Programme (UNDP), which focused on their needs and providing them with the best forms of health, social and educational care. According to the World Economic Forum (WEF) 2021, Bahrain ranked first in the world in closing gender gaps in the enrollment in secondary and university education and ranked first among Arab countries in the health and well-being of youth, according to the Commonwealth Report 2020.

Also, the Government Action Plan (2019-2022) included a number of important initiatives aimed at encouraging and supporting the youth through training, educational, and support programmes, and work is underway in the field of planning innovative employment projects and plans for the youth, and enhancing microenterprise support programmes over the next two decades, which comprise self-employment for young people and the ability to benefit from their latent capabilities in promoting and advancing the national economy.

While at the level of the elderly, the national strategy for the elderly included extensive plans to implement various programmes and activities that eliminate the difficulties facing the elderly and hindering their integration into society. Moreover, the number of people with disabilities is more than 16,000 citizens, therefore, the government gives attention to rehabilitating and employing them in the public and private sectors according to clear plans and programmes based on the needs of the labour market.

As for expatriate workers, Bahrain provides more than 600,000 permanent job opportunities for expatriates of various qualifications and competencies, as they and their families receive free education services and semi-free medical treatment, while allowing them to transfer their financial savings without any deduction.

Also, Bahrain has a rich experience in dealing with the spatial variable by organising open spaces through urban planning and urban development, which are in line with its international commitments to the SDGs 2030, Paris Agreement to tackle climate change, Sendai Framework for risk and disaster reduction, and the New Urban Agenda.

In the field of housing, the Kingdom of Bahrain is keen to ensure access to adequate and affordable housing, as Bahraini residents live in adequate and decent housing equipped with all facilities and services in all governorates of the Kingdom, and the building and construction process is subject to strict general and detailed building rules and standards. It is noteworthy that the policy of providing adequate and sustainable housing services came as one of the most important focuses and initiatives of the Government Action Plan (2019 - 2022), which include working to provide at least 25,000 new housing units over the four year-action plan, while developing housing policies to ensure their sustainability.

Furthermore, Bahrain is characterised by the absence of favelas or slums, as the government has made and is still making great efforts with strides to rehabilitate the old areas in the traditional neighbourhoods of all major towns, while preserving their traditional architectural character, as there are no residents in Bahrain living in favelas, slums, or inadequate housing, and the percentage of towns with "informal" slums development programmes is 100%.

Regarding access to basic services, potable water networks cover 80% of the population and populated areas, as the percentage of the population connected to the sewage network reached 100% of the country's population in the Year 2020, while the percentage of municipal solid waste collected and managed in controlled facilities reached 100% of the total municipal solid waste originating from towns in the Year 2020.

At the level of the road network, Bahrain's road network is known for its high quality and availability of an integrated infrastructure among all its transport systems, and the availability of a secure traffic. Moreover, the Kingdom of Bahrain is characterised by a high-quality electricity network with facilities covering the electricity needs throughout the country, in addition to the efforts of the Sustainable Energy Authority (SEA) in preparing and implementing two national plans; one of which is to increase the quantity of renewable energy sources from the total mix of produced and consumed energy, and the other is to raise the efficiency of the total use and consumption of energy, while encouraging investment in this sector.

Furthermore, the Kingdom of Bahrain is moving steadily towards generalising the use of clean and renewable energy from wind and solar energy and is currently implementing several initiatives and practices that will ultimately lead to the rationalisation of energy use.

As for climate change, the Kingdom of Bahrain dealt with this issue early by taking various procedures and measures, including issuing a resolution for Environmental Assessment of Projects in 1998, and another resolution for Environmental Standards and its amendments in 1999, which had the greatest impact on reducing emissions from old industrial activities, as well as stimulating the public and private sectors to invest in green technologies that are environmentally friendly in their new projects.

It is of high importance to mention that preserving the marine environment and biodiversity came as core issues in Bahrain's Economic Vision 2030, in which sustainability was one of its three principles, as the Government Action Plan (2019-2022) emphasised the provision of infrastructure that supports sustainable development.

The national strategies of the Kingdom of Bahrain focus on improving the standard of living versus reducing government costs, and the strategy of the e.Government Action Plan 2020 is consistent with this orientation, and in line with what is included in the Government Action Plan (2019-2022) of adopting modern technologies in various government sectors, and encouraging the transition to cloud computing services, enhancing cyber security, shifting to electronic services, and providing and governing spatial information. This electronic transformation is achieved in government services via employing the information and communication technology (ICT).

All of these commitments constituted a reference for the Kingdom's orientations towards urban prosperity, social inclusion, sustainability, and resilience with the diligent implementation of the New Urban Agenda. Despite difficulties, the Kingdom has succeeded in all its endeavours towards achieving these orientations.



## Stakeholder Partnerships & Commitments

## Stakeholder Partnerships & Commitments



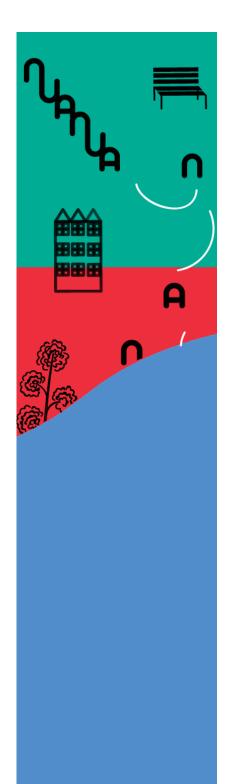
Work on this report included great cooperation and concerted efforts from many governmental and official agencies in the Kingdom of Bahrain, which included ministries, official bodies and councils, in addition to municipal councils, civil society institutions and Bahrain Studies Center at the University of Bahrain, which as a whole constituted an example of partnership in work for the implementation of the New Urban Agenda.

Moreover, Team Bahrain communicated with official and international bodies that are directly related to the preparation of the national report, and worked permanently and continuously to provide support and advice from experts concerned with the New Urban Agenda, such as the Office of the United Nations Resident Coordinator (UNRC), the Resident Representative of the United Nations Development Programme (UNDP) in the Kingdom of Bahrain, the Office of the United Nations Human Settlements Programme in the Gulf Cooperation Council - State of Kuwait, and the United Nations Human Settlements Programme (UN- Habitat).



## **Covid-19 Response**

### Coronavirus (Covid-19) Response



Upon the great challenge that faced the world during the past period, due to the spread of the Coronavirus (Covid-19) pandemic and its repercussions on societies, the Kingdom of Bahrain launched a financial package that exceeded 4.5 billion Bahraini Dinars (USD 11.9 billion) to support the economic and commercial sectors in the country and limit the repercussions of the global spread of the virus. The government took a number of rapid measures to confront the pandemic, including exempting consumers from paying electricity and water bills; the citizens were exempted from paying the electricity and water bills for the first main house from April to December 2020, while the rest of the country, including all residents and businesses were exempted from paying the electricity and water bills for 3 months; April - June 2020, as well as stopping and postponing the payment of loan installments while raising the lending capacity of banks to about 3.7 billion Bahraini Dinars to postpone installments or to provide additional financing to customers. Also, the government ensured the payment of the salaries of all insured Bahrainis working in the private sector at 100% for a period of three months, and 50% of Bahrainis' salaries working in private sector enterprises whose business and resources have been affected by the negative repercussions of the pandemic for another nine months during the Year 2020. While directives from the Cabinet were also issued to renew the provision of aid to affected institutions through the payment of salaries of insured Bahrainis for a period of 3 months at a rate off 100% for the first month and 50% for the second and third months, starting from June 2021, and the circle of beneficiaries of the government's financial programmes has been expanded to include a number of self-employed workers who are not registered with the General Organisation for Social Insurance (GOSI).

Also, the Kingdom has adapted the latest advanced technologies to find solutions to contain the Coronavirus and prevent its spread, and the Information and e.Government Authority (IGA), in cooperation with the National Taskforce for Combating the Coronavirus, has launched the application 'BeAware Bahrain' to support national efforts to combat the virus.

This application supports sharing information, instructions and statistics related to the pandemic, enhancing the efforts of health authorities, accelerating the process of tracking and identifying contacts, closely following up individuals in self-isolation and quarantine, monitoring their contacts, facilitating the process of booking and scheduling Coronavirus (Covid-19) tests, and supporting the efforts to react and address the pandemic at the local and international levels.

As part of the precautionary measures, the Kingdom of Bahrain, through its relevant ministries, including the Ministry of the Interior (MOI), Ministry of Labour and Social Development, and the Ministry of Health, has worked to reduce the population densities in workers' group residential buildings by coordinating with the buildings' owners to redistribute workers to the vacant apartments available in these buildings or by providing alternative housing for them, especially during the Coronavirus spread limitation period, as well as working to include health, security and safety requirements in improvised housing to ensure that it is compatible with the criteria and standards that are required in adequate housing. Furthermore, temporary premises were also provided to accommodate expatriate workers, while ensuring the provision of comfort means, all equipment and necessities, in addition to continuous sterilisation of vital sites, streets and main roads in those areas.

Moreover, the kingdom has provided a "Hotline 444" to receive inquiries and complaints about the Coronavirus pandemic, and has launched campaigns to provide food subsidies to needy families and expatriate workers, and provide computers for students of both genders, in addition to covering other costs to ease economic and social pressures.

Since the pandemic had a major impact on the commercial sector, the Labour Fund "Tamkeen" launched the "Business Continuity Support Programme" as an initiative to support small and micro enterprises, in an integrated framework with the system of national efforts aimed at reducing the economic effects of the Coronavirus pandemic, and providing support to institutions within the Kingdom's financial and economic package, contributing to achieving this goal. As the Labour Fund "Tamkeen" provided financial grants to microprojects and small enterprises that were affected by the repercussions of the pandemic, and these grants extended to include the rest of the medium-sized and large enterprises in the sectors most affected by the precautionary measures taken by the Kingdom to reduce the spread of the virus.

This support has been ongoing since April 2020, and continued onto the second quarter of 2021, particularly for the most affected sectors. Also, the financial and economic package resulted in prolific decisions, including doubling the volume of the liquidity fund from 100 to 200 million Bahraini Dinars, with the aim of continuing to support private sector companies and institutions to overcome the challenges they are facing, provide them with the necessary liquidity to deal with the repercussions in order to preserve sustainable growth, and help them to fulfill their important role in supporting the national economy. It is worth noting that the launch of the liquidity fund in 2019 came with the aim of contributing to stimulating the growth of the national economy by supporting companies and small and medium-sized enterprises (SMEs) in all business sectors, in cooperation with a group of banks and institutions in the Kingdom, by helping them in obtaining the credit facilities necessary to finance their financial obligations, enabling them to continue to perform their role and implement their plans and projects, achieving their desired objectives, and contributing to economic growth.

In light of these developments, the Labour Fund "Tamkeen" has worked on developing its new strategy, as this year marks the beginning of the fifth strategic session of Tamkeen (2021-2025), which revolves around six areas that correspond to the needs of the sectors benefiting from Tamkeen's programmes and most importantly the labour market, and the requirements for internal improvement in the fund during the current strategic period.

The pandemic conditions required flexibility in implementing national plans and strategic and policy frameworks, and all national institutions in the Kingdom of Bahrain made

qualitative efforts to review and adapt their strategic plans and frameworks in line with the requirements of this stage. From this standpoint, the Supreme Council for Women (SCW) conducted a comprehensive review of the national plan for the advancement of Bahraini women in an effort to ensure the sustainability of the progress pace achieved in the status of women, especially regarding women's access to services and opportunities.

This review resulted in creating a strategic implementation plan to adapt to the pandemic conditions for the period (2021-2022), which confirms the maturity of the Kingdom of Bahrain's experience, through the Supreme Council for Women, in the field of strategic planning that supports the advancement of women. As the National Plan for the Advancement of Bahraini Women has developed a methodology for the governance of women's integration processes in development programmes characterised with being proactive in foreseeing the future, flexible in planning and implementation, and managing risks and challenges with innovative and qualitative mechanisms.

Simultaneously, around 113 charity societies that serve different areas in the Kingdom, in addition to 10 development societies that contribute to housing, urban and development services for their areas, played an active role in covering the needs of the population and those affected by the spread of the Coronavirus during the Years 2020-2021. They also had a role, alongside the role played by healthcare societies in various specialisations, in spreading awareness programmes and various brochures and posters in different areas, which had the biggest impact on the speed of spreading awareness among the population and different groups, especially among foreign workers, particularly the illiterate, which reflacted their response to all instructions issued regarding the pandemic.

It is worth noting that the National campaign "Feena Khair", an initiative launched by His Highness Shaikh Nasser bin Hamad Al Khalifa, the Representative of His Majesty the King for Humanitarian Works and Youth Affairs and Chairman of the Board of Trustees of the Royal Humanitarian Foundation (RHF), had a significant and influential role in providing a helping hand and assistance to those affected by the pandemic. As this initiative was the best embodiment of the solidarity spirit and social cohesion that characterises the Bahraini society.

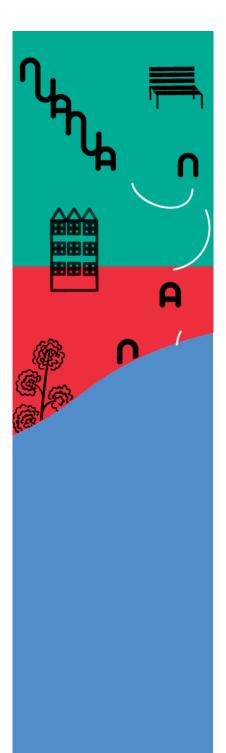


## Sustainable Development Goals SDGs

#### Sustainable Development Goals (SDGs)

#### Goal 11:

Make cities and human settlements inclusive, safe, resilient and sustainable







# Part I: New Urban Agenda Transformative Commitments

## (1-1) Sustainable Urban Development for Social Inclusion and Ending Poverty

#### (1-1-1) Social inclusion and ending poverty

#### (1-1-1-1) Eradicate poverty in all its forms

The concept of poverty does not apply to the Kingdom of Bahrain, as the percentage of the population below the poverty line is equal to zero according to international standards. The economic system in the Kingdom of Bahrain is based on economic foundations consistent with the National Action Charter that supports the individual initiative and freedom of capital in investment and movement, while supporting and emphasising the role of the private sector in resource development and revitalisation of economic activity. Also, the financial policies followed in the Kingdom since the eighties of the last century, and the economic reforms the country witnessed since the beginning of the new millennium and were emphasised by Bahrain Economic Vision 2030, especially those related to the macroeconomic and financial stability, as well as those related to regulations and systems of government revenues; all worked on enhancing the effectiveness of the country's social protection system. As for the implementation of the Sustainable Development Goals (SDGs) 2030, the government's action plans since 2015, especially the Government Action Plan (2019-2022) have emphasised, in its economic and financial pivots, the consolidation of a strong and diversified economy and a stable financial and monetary system that contributes to strengthening the country's development process.

Moreover, the Kingdom's policies focused on increasing the participation of all its residents in the opportunities available, hence improving the distribution of income among the different social groups and subsequently, improving their lives in terms of quality and kind.

Results have been manifested in the increase of the level of cash income for the individual and family at a rate of 47% in the period (2008-2016), increase in the rates of productive employment, strengthening of links between social aid and services provided by the Kingdom to its citizens, and the diversification of services and policies aimed at ensuring a minimum standard of living that greatly exceeds the international poverty line in its global concept (less than USD 1.9 per day).

The Kingdom of Bahrain's government sponsors the needlest segments of society in order to provide the elements of social security through a package of systems and measures for social protection, including creating an appropriate environment and strengthening the capacities of charity societies to enable them to play the role of mediator between average and high income society groups and the needlest individuals. Also, these charity societies raise the capabilities of those with limited incomes to transfer them from indigency to sufficiency, based on the principle of social solidarity.

Furthermore, the government provides housing programmes, free education, health and basic services, and provides allowances for people with disabilities, in addition to unemployment insurance, high cost of living allowance, meat subsidy compensative initiative, reduction in electricity and water fees, housing allowance and others, thus ensuring a decent living for limited-income people. Based on the foregoing, it is unequivocally clear that the extreme poverty segment does not exist in the Bahraini society, as the percentage of the population below the extreme poverty line in the Kingdom is zero. In fact, according to international classifications, especially the World Bank classification, the Kingdom of Bahrain is considered one of the high-income countries, and this was evident in the income index in the Human Development (HDR) Report 2020, in which Bahrain attained 0.914.

It should be noted that the data of Human Development Reports issued by the United Nations Development Programme (UNDP) indicate that Bahrain has an advanced position on the Human Development Index (HDI) since the beginning of the report's issuance in 1990, as Bahrain ranked  $42^{\rm nd}$  among the 189 countries that were included in the Year 2020 report, achieving 0.852 on the HDI among countries with "very high human development". Furthermore, in the report of the International Telecommunication Union (ITU) Report on digital trends in the Arab States 2021, Bahrain ranked first among Arab countries in the availability of advanced Information and Communication Technology (ICT) skills as a percentage of the population.

These indicators reflect the advanced level of infrastructure and services provided in the Kingdom of Bahrain. As on the level of education, high levels have been achieved and were attested in providing education at all levels (Primary, Basic, Higher and Continuing education) for everyone.

According to several international references: (The Inclusive Internet Index (3i), Facebook & The Economist 2021), Bahrain ranked first globally in digital literacy education, and ranked first in the world in digital skills training for females and in STEM Education.

While on the standard of individuals who live under the threat of crime, disasters, and fear exposure to any risks whether natural or human, and who are automatically included below the poverty line, this does not apply by any means to the Kingdom of Bahrain.

Moreover, the level of infrastructure and public utilities in the Kingdom of Bahrain is of high quality, and they are available to all from any of the categories, including clean drinking water, sewage, electricity services, and roads built with the latest specifications, and this applies as well to all services and facilities, including health services with their high quality facilities, which are generally available to everyone (children, the elderly, expatriates and all citizens of both genders) and without financial fees in most cases. It is worth noting that Manama has been accredited as the "Health City" for the Year 2021 by the World Health Organisation (WHO), which opened its office in Bahrain in July 2021.

The Kingdom of Bahrain always considers the means of prevention when preparing and setting national plans in the fields of social protection and development, based on the principle of equal opportunities, to avoid reaching stages where poverty and need prevail. Among the most important means of prevention is supporting activities to develop women's entrepreneurship in the field of business and projects, due to the important role of entrepreneurship in the economic and social life, as small projects contribute to creating new jobs in any society. Furthermore, the involvement of women in this sector contributes to raising the percentage of their participation in the labour market and reducing the gap between the contribution of women and men to it, in addition to the contribution of this sector to the eradication of poverty.

Indicator: \* It does not apply to the Kingdom of Bahrain. Hence, the proportion of the population living below the international poverty line at the national urban level, by gender and age: zero.

# (1-1-1-2)Address inequality in urban areas by promoting equally shared opportunities and benefits

The Constitution of the Kingdom of Bahrain stipulates that all citizens are equal in political, economic, and social rights and duties, and it emphasises equal opportunities among all citizens. In addition, all legislations, laws and regulations have worked to enhance and increase opportunities and enrich benefits, and even share them between all citizens without the slightest ethnic, religious, social, or gender discrimination. These legislations, laws and regulations ensure that everyone enjoys basic public services, such as water and sanitation, electricity, education and health care, without exception, including expatriates.

Despite the varying financial and economic capabilities and the individuals' diverse educational backgrounds, these disparities do not affect their participation in public benefits and decision-making, as municipal councils represent the democratic popular participation, and the participation of citizens in decision-making at the local level, especially regarding local urban planning.

Not to mention that development partners from the private sector and civil society institutions actively participate in decisions at the local level.

At the national level, there are many governmental initiatives and work plans to rehabilitate people with disabilities and employ them in the public and private sectors according to clear plans and programmes based on the needs of the labour market, and in accordance with the principle of equal opportunities.

While at the level of women's economic empowerment, women's contribution to the labour force has increased to 42.8% in the Year 2020, and they have occupied many jobs, including judicial jobs, jobs in the diplomatic corps, executive and specialised jobs in the public and private sectors, and they have assumed major ministerial positions, in addition to their work in the field of entrepreneurship, as their ratio in possession of active commercial registers (CRs) amounted to about 42% of the total owners in the first half of the Year 2020.

Also, Bahrain achieved a score of 100 for women entrepreneurship in the Women's Business and the Law report and World Bank report 2021.

Indicators: \*Detailed data by gender, age, and people with disabilities are not available for each city/town separately, however, the general level of unemployment is at its acceptable and potential level on the level of economic performance. The unemployment rate reached 3.6% in the Year 2010 and increased to 4.9% in the Year 2020 (Census 2020). \*The value of the Gini coefficient was 0.596, and this coefficient varies between Bahrainis with 0.440, and non-Bahrainis with 0.736 for the Year 2015.

# (1-1-1-3)Enhance social inclusion of vulnerable groups (women, youth, older persons and persons with disabilities and expatriates)

The Constitution guarantees complete equality and non-discrimination between the members of Bahraini society. On the part of women, it guarantees the right to participate in the public affairs and enjoy all political rights, and it has approved legislation and laws promoting equality and social inclusion for women, most notably Law No. (19) of the Year 2017, which preserves women's rights in legal matters.

At the same time, the National Plan for the Advancement of Bahraini Women (2013-2022) ensured family stability and the enhancement of women's competitiveness and contribution to national development. From this perspective, a number of initiatives and strategic frameworks were launched to protect women and enhance their social and economic security, as Law (17) of the Year 2015 on Protection against Domestic Violence was approved, and in November of the same year the Supreme Council for Women (SCW) launched its National Strategy to Protect Women from Domestic Violence. In addition, the Unified Framework for Family Awareness-Enhancing Services was launched with the aim of unifying national efforts aimed at protecting the family structure and strengthening its bonds.

In consideration of the role of women and the importance of their participation in public life, the SCW launched a national model for the governance of equal opportunity applications, achieving gender balance in economic participation opportunities, and providing women with sources of knowledge, consultations, quality training, and development incubators. Also, the National Gender Balance Report and the National Observatory for Gender Balance Indicators represented the adopted national mechanism to follow up and monitor the extent to which gender balance policies, programmes and initiatives are activated, including the

establishment of equal opportunity committees and departments in various bodies and institutions, and the adoption of budgets that respond to the needs of women and men to ensure justice and equal opportunities. It is worth noting that women in the Kingdom of Bahrain have the right to conclude valid contracts of credit, real estate and other properties, conduct commercial business in their own names without the need for prior consent of the husband, and manage their money without any interference from men or the need for their approval. Also, since November 2015, the Central Bank of Bahrain (CBB) has obligated all financial institutions to provide women working in the financial sector the same job benefits as men, in addition to the Minister of Housing Resolution No. (909) of the Year 2015 regarding the housing system, which allows different categories of women to benefit independently from housing services.

In this regard, the Cabinet promulgated a resolution in 2015 to separate the husband's salary from the wife's when calculating the basic income of the head of the family in the process of applying for the housing service.

In its turn, the Ministry of Labour and Social Development (MLSD) is intensifying its efforts to increase the rates of Bahraini women integration into the national labour market, by providing appropriate job opportunities and improving the working environment and conditions to suit women's privacy, while MLSD continues to update labour legislations to promote the principles of gender balance and non-discrimination between workers. With regards to women's rights and equality in the labour market, Decree No. (16) for the Year 2021, promulgated by Bahrain's king, His Majesty King Hamad bin Isa Al Khalifa, concerned with amending certain provisions of the Labour Law in the private sector; Law No. (36) of the Year 2012, where a paragraph was added within Article (39) stating: "It is prohibited to discriminate in wages between male and female workers in occupations of equal value."

In order to promote and support women's participation in civil society institutions, procedures for organising information related to civil society have been developed within the framework of a guide for non-governmental organisations (NGOs) to monitor the extent to which women contribute to this sector and their opportunities in decision-making centres. The data of this guide indicates that the percentage of women's active participation in the membership of NGOs is 16% of the total members, and their participation in decision-making centres as members of the Board of Directors is 17% of the total members of boards of directors.

In activation of the role of the Kingdom of Bahrain at the international level in the field of women's empowerment and advancement, the United Nations Organisation for Women (UN Women) launched the "Princess Sabeeka bint Ibrahim Al Khalifa Global Award for Women's Empowerment" in 2017, in partnership and cooperation with the Kingdom of Bahrain through the SCW, with the aim of demonstrating the impact of the efforts and contributions of governments, companies, civil society organisations and individuals with competence and achievements in the field of empowering women and girls around the world. This international award comes within the framework of the Kingdom of Bahrain's endeavour, in cooperation with the international community represented by the UN Women, to contribute to demonstrating the sustainable progress achieved in the field, in order to ensure competitiveness and fair participation between the two genders, disseminate the best effective methodologies and practices to enhance the status of women at the global level, and contribute to emphasising the importance and viability of achieving the SDGs that are directly and indirectly related to the empowerment of women, and the impact of this on their continued progress within the framework of applying the principles of equal opportunities to achieve gender balance in all areas of life and development.

While at the youth level, the Kingdom developed a national strategy for youth in the Year 2005, in cooperation with partners and allies at the national and international levels, which focuses on their needs and providing them with the best types of health, social and educational care. In addition, the Ministry of Youth and Sports Affairs (MYS) has built many sports facilities and youth centres, which has amounted to 44 centres in the Kingdom's various governorates, while the number of beneficiaries reached to about 132,000 young men and women in the Year 2017.

The Government Action Plan (2019 - 2022) included a number of important initiatives aimed at encouraging and supporting youth through training, educational and support programmes, where the idea of business incubators came to realisation, through which the government provides various means of support, motivation and encouragement to Bahraini youth by helping them develop their own economic projects. Also, the economic empowerment initiatives for youth emerged to enable the Kingdom's institutions to work in an integrated manner, in coordination with the private sector and training institutions, to provide many programmes, projects and services that have contributed greatly to enable

youth to engage in entrepreneurship and facilitate their access into the labour market. One of the most important programmes is the "Youth City 2030" programme, launched in August 2013 in cooperation between the General Organisation for Youth and Sports (GOYS) and the Labour Fund "Tamkeen", and within the framework of best practices in the field of youth, King Hamad Award was launched in January 2017 to empower youth to achieve the SDGs, aiming to stimulate and encourage various sectors to take interest in empowering youth and enhancing their role in production, as well as their contribution to the well-being of their local communities and environments.

It is worth noting that the Kingdom of Bahrain chose the United Nations Development Programme (UNDP) and the United Nations Economic and Social Council (UN ECOSOC), to support the Award and assist in managing it, and consequently, the UNDP uses its offices around the world to market the Award and its sublime goals.

Moreover, the Government is enhancing the sports infrastructure through qualitative development in the construction and establishment of new sports facilities and the improvement of existing ones, while intensifying opportunities for training, qualifying and vocational qualification for the youth, thus enhancing their employment opportunities, while giving them priority in national labour policies. In addition, the number of youth-related societies in the Kingdom of Bahrain has reached 23, and there are 16 NGOs specialised in youth talent, creativity, training, and student and educational programmes.

At the level of the elderly, Law No. (58) of the Year 2009 on the rights of the elderly is the main reference to guarantee the rights of this segment of society. Also, the National Committee for the Elderly is keen to follow up on regional and international developments in the field of elderly care.

The National Strategy for Seniors includes extensive plans to implement a number of programmes and activities to eliminate the difficulties facing the elderly and hindering their integration into society. Since 1985, several 24/7 residential care institutions and specialised day-care centres, which amount to 15 institutions, have been established to provide social, psychological and health care for the elderly of both genders all around Bahrain.

In addition, civil society organisations were assigned to manage and operate day care institutions for seniors to provide elderly care services during the day in order to keep them within their natural community surroundings in their residential neighbourhoods.

Furthermore, a system of «mobile units» was established to provide health, nursing and personal care services, and family counseling for the elderly in their homes.

In order to facilitate the elderly's access to high quality services under the same roof, Resolution No. (9) of the Year 2013 was promulgated on the establishment of the "Office of Elderly Services" to employ the expertise and capabilities of the elderly, and encourage them to contribute to production and giving, as well as issuing the elderly service card, which offers discount packages and service facilities in various activities in the public and private sectors.

To improve the services of the elderly, the "Life Quality for the Elderly" project was launched, which primarily takes into account the preservation of the elderly's dignity, while enabling them to live their lives completely independently without the need for help from others.

Government initiatives came to provide grants to NGOs with the aim of activating community partnership with the civil sector to contribute to providing services for the elderly and enhancing the role of this sector in community service, and on the other hand, enabling day care institutions to take care of seniors and play their role in providing different aspects of care for the elderly, develop programmes aimed at qualifying a number of trainers and workers in the elderly care institutions to ultimately increase day care institutions for the elderly, and demand the development of medical services provided to them by providing specialists in geriatrics and psychiatry for the elderly and establishing special units for their care in health centres and hospitals.

One of the best practices to identify weaknesses in the elderly's quality of life is to conduct a field survey of the elderly in the Kingdom, in addition to providing them with prosthetic devices, such as wheelchairs, hearing aids, and other devices, which shall be approved by the Eligibility Committee for the Elderly's Prosthetic Devices Requests.

According to the Census 2020, the number of persons with disabilities reached to more than 16 thousand citizens, and in order to ease their lives, a number of important initiatives were launched. On the one hand, the Government has adopted a design standards guide for persons with disabilities of both genders, which is applied to all government and private buildings, and it focused on qualifying and employing them in the public and private sectors according to clear plans and programmes based on the needs of the labour market. In addition, the Kingdom's ministries and institutions, in cooperation with civil

society organisations, NGOs and the private sector, provide various types of social, health and cultural care for people with disabilities, and work on training and qualifying them to integrate them into the labour market and society as a whole, as well as enacting legislations and laws that protect their rights to have all their necessary needs and integrating them into the national development.

Also, citizens with disabilities of both genders can benefit from the financial allocations that the country provides them, in addition to providing special support for their dependents, establishing comprehensive disability complexes and centres to care for people with disabilities, autism and cerebral palsy, marketing their products, training them and developing their skills in order to integrate them into the labour market, in accordance with the Convention on the Rights of Persons with Disabilities, ratified by Bahrain in the Year 2011.

The state has given attention to integrating children and youth with disabilities into public education for more than two decades, as the Kingdom of Bahrain has worked, through the Ministry of Education, to promote equality and coexistence among all student categories, by integrating students with special needs into schools and training them to deal and interact with others in the community. Schools accept students with special needs just like ordinary students without discrimination, as schools have been prepared to receive them through special education classes, prepare and implement awareness programmes for administrative and educational school bodies and students, and equip schools with the necessary tools to meet the needs of this category. It is worth mentioning that about 175 schools have implemented the special education programme in the various stages of education in the Kingdom of Bahrain, based on the principle of equal opportunities in learning and participation in social life.

As an example of the progress made in integrating students with special needs, the number of students enrolled in autism classes in public schools has increased to 146 students of both genders, who have been distributed among the 24 public schools that host the programme, including 72 male and female students, who have been transferred completely from special classes to regular classes, due to the remarkable development in their abilities.

Recently, in May 2020, an integrated ID card with the disability ID was issued. Furthermore, all people with disabilities receive many advantages, most notably is the benefit from the

discounts offered by a number of institutions and shops at a rate ranging from 5% to 50%, in addition to obtaining a parking sticker for people with disabilities from the General Directorate of Traffic, as well as providing them with a special lane at King Fahd Causeway via King Fahad Causeway Authority, and with a 50% discount on the causeway crossing fees.

While in the field of legislations and resolutions, Resolution No. (80) of the Year 2018 was promulgated on the terms and conditions for granting two hours of rest to an employee or worker with a disability or who takes care of a person with a disability, in addition to the Cabinet Decision No. (5) of the Year 2020 to reform the Higher Committee for Persons with Disabilities, headed by the Minister of Labour and Social Development (MLSD), and include in its membership representatives from the governmental, civil and private sectors. The committee's interest and focus at the current stage is to update the national strategy and plan for the rights of persons with disabilities for the coming five years, in conjunction with the intensive monitoring and follow-up of all parties concerned with the implementation of the strategy.

Furthermore, on February 2021, the Ministerial Committee for Financial and Economic Affairs and Fiscal Balance promulgated a decision (No. 3-92-2021) exempting people with disabilities from the tariff for using public buses, which is a government initiative to facilitate the free transport process for them in the Kingdom.

In the field of financial support, MLSD provides annual support to the 12 civil rehabilitation centers (affiliated to non-profit NGOs) working in the field of people with disabilities, amounting to BD 1.2 million annually. This financial support was not affected by the economic repercussions of the Corona virus pandemic, and there are about 500 students with various disabilities, who benefit from this support. At the same time, the Ministry continued to provide its annual support for the management and operation of mobile units (two units) for the care and rehabilitation of persons with disabilities, of which about 140 cases benefit from annually. Also, the Government provided the economic package to face the repercussions of Corona to all the sectors involved in the rehabilitation and training of people with disabilities during the interruption of work in private rehabilitation centres working in this field, and permitting the collection of fees from the guardians, in addition to allowing these centres to resume individual treatment and rehabilitation sessions for their students while applying all precautionary measures.

Also, expatriates benefit from public utilities and social services through public policies, in addition to procedures for ensuring accommodation and health insurance, work accident insurance, and a protection and unemployment insurance system in the event of unfair dismissal. The Labour Market Regulatory Authority (LMRA) has taken several steps to protect the rights of expatriate workers without prejudice to the rights of other work parties, including legislations to emancipate from the sponsorship system, the freedom of worker's movement to a new employer, and grace periods to allow vioalators to correct their status.

With the launch of the "Flexi Permit" project in 2017, the conditions of expatriate workers have improved, ensuring their rights along with the rights of other work parties. At the same time, the Kingdom of Bahrain is keen to constantly review and develop its legislative and legal systems in line with international requirements, especially in the field of protecting the rights and dignity of expatriate workers from being subjected to attempts of extortion, exploitation or human trafficking.

An Expat Protection Centre, which includes a shelter, was established in 2015, to support and protect expatriate workers, in addition to the inauguration of the national referral system to combat human trafficking in 2017.

Indicators: \* By law, women in the Kingdom of Bahrain enjoy the right to inherit and own property (the Real Estate Registration Law of 2013), as well as the right to conclude all valid contracts related to credit, real estate and other properties, and to conduct business and manage their money in their personal names without the need for prior consent of the husband.\* National legislations prohibit discrimination in housing, access to public facilities and social services based on race, colour, sex, language, religion, political or non-political opinion, national or social origin, property, place of birth or any other status.

# (1-1-1-4)Ensure access to public spaces including streets, sidewalks, and cycling lanes

Well-planned public spaces are important mainstays for a city/town due to their significant impact on its economy, as investing in these spaces can improve the general health and well-being of residents, reduce the manifold effects of climate change, encourage people to walk and use bicycles, and lead to increasing security and reducing crime.

The urban planning and development strategies in Bahrain have emphasised this fact in

their guidelines issued in March 2018, especially those related to green spaces in the city/town (Green Guidelines).

The building and construction of main and secondary road networks are carried out by the road sector at the Ministry of Works, Municipalities Affairs and Urban Planning (MOWMAUP), as well as some other bodies such as the Ministry of Housing (MOH) and private sector institutions responsible for the construction of main and secondary road networks.

Within the framework of Bahrain Vision 2030, the Kingdom adopted a strategic plan to establish main road networks and link them to secondary roads in accordance with international standards and specifications used in the development of urban infrastructure.

This plan includes the provision of safe Lanes for bicycles and sidewalks for pedestrians within all new road projects, taking into account giving them a civilised appearance by providing green areas, increasing the area of afforestation and beautification, and providing all traffic safety requirements for road users such as signs and regulatory or warning ground lines, rainwater drainage networks, and the provision of lighting poles, in addition to the installation, programming and maintenance of traffic lights. For example, in the cities of Manama and Muharraq, a total of 64 of such projects were established with a total cost of about 106 million Bahraini Dinars (Table 1).

**Table 1: Road projects in Manama and Muharraq** 

City	No. of Projects	Cost (Million (BHD
Manama	41	35
Muharraq	32	71
Total	64	106

Source: Ministry of Works, Municipalities Affairs and Urban Planning

In the context of encouraging the use of bicycles as a sport and safe means of transport in various areas of the Kingdom, the Ministry of Housing has established designated bicycle lanes within its housing projects with 103.5 kms in the new residential towns. At the same time, several projects have been worked on to establish a network of bicycle lanes that consider all traffic safety requirements, some of which have been completed while work is ongoing on others (Table 2).

Also, the Ministry of Transportation and Telecommunications was keen to support this type of transport by regulating the operation of bicycles and electric bikes by the private sector, as a ministerial decision was promulgated in the Year 2020 regarding them.

**Table 2: Bicycle Lanes in Bahrain's New Towns** 

Town	Bicycle Lanes' Total Lengths (Km)		
East Hidd Town	9		
East Sitra Town	13		
Khalifa Town	32		
Salman Town	41		
Ramli District	8.5		
Total	103.5		

Source: Ministry of Housing

Indicators: \*The average share in percentage of the built-up area for towns that are considered open spaces for public use for all at the level of the Kingdom in the Year 2018 amounted to 18%, but this percentage varies between the four governorates, with the highest percentage in the Southern Governorate reaching 21.61% and the lowest in the Northern Governorate at 15.94%.

### (1-1-2) Access to adequate housing

### (1-1-2-1) Ensure access to adequate and affordable housing

Residents of Bahrain live in adequate and decent housing equipped with all facilities and services in all the governorates of the Kingdom, and the construction and building process is subject to strict general and detailed building rules and standards. The Ministry of Housing assumes the duties and responsibility of overseeing and organising the housing file in accordance with the requirements of the constitution. In its turn, the Ministry of Housing promulgates resolutions, to regulate access to various housing services, and amends them successively in accordance with the requirements of the public interest. Bahrain has a rich and long experience in providing social housing programmes for its citizens that began in the 1960s with the establishment of the first modern town; Isa Town, which provided many homes and ownership apartments to citizens, while at the onset of the eighties of the same century, the second era began with the implementation of the Hamad Town project that is still witnessing an urban expansion that includes many social housing projects. At the inception of the second decade of the new millennium, specifically, at the beginning of the Year 2012, a new third era started to meet the increasing demand for housing by launching an integrated housing plan for the construction of 6 new sustainable residential towns that include Deerat Al-Oyoun in Diyar Al-Muharraq, East Sitra Town, East Hidd Town, Salman Town, Al-Ramli Residential District, and Khalifa Town, with a total number of 36,618 units (Table 3).

**Table 3: New Residential Towns Projects** 

Town	No. of Housing Units	
Deerat Al-Oyoun - Diyar Al-Muharraq	1,921	
East Sitra Town	3,850	
East Hidd Town	4,532	
Salman Town	15,566	
Al-Ramli District	4,501	
Khalifa Town	6,248	
Total	36,618	

Source: Ministry of Housing June 2020

All these government projects adopt a demand-based housing approach, which is determined by demographic factors and the principle of maximising social benefit. Through these programmes and initiatives, the government invested more than 3.3 billion Bahraini Dinars (more than USD 8.7 billion) in the social housing sector to serve limited income people between 1960-2018, and provided more than 150,000 housing services until the Year 2021, which ranged between houses, apartments (for ownership and rent), residential plots, and housing loans for construction, purchase and restoration.

These subsidised housing services to provide adequate housing have served more than 89% of the eligible Bahraini citizens for housing, who have met the terms and conditions, and the Kingdom's government has waived about 63% of these investments as non-refundable grants to support Bahraini families.

The policy of providing adequate and sustainable housing services came as one of the most important pivots and initiatives of the Government Action Plan (2019-2022), which includes working to provide at least 25,000 new housing units over the four-year period of the action plan, while developing housing policies to ensure their sustainability. And with the adoption of the National Strategic Structure Plan 2030 in its second edition in the Year 2016, the principle of transparency in the various uses of land was enhanced, thus contributing to the development of the investment environment, supporting the national economy and continuing urban development.

At the same time, the Real Estate Regulatory Authority (RERA) was established in the Year 2017, based on Resolution No. (27) of the Year 2017 on the regulation of the real estate sector, and Decree No. (69) of 2017 on organising RERA, to provide a strong, safe, transparent and sustainable regulatory environment for the real estate sector, which contributes to encouraging investment in this sector and protecting the rights of owners, investors and real estate developers.

Moreover, women have their share in the national housing plans and initiatives, as the Government of the Kingdom of Bahrain was eager to provide adequate housing for married, divorced, abandoned, widowed, and single Bahraini women. At the same time,

women benefit from a housing allowance, and the law exempts them and their minor children from all sums that the deceased owed for the housing service in the event of a wife become widowed following the death of the head of the family (the breadwinner/provider), and the home ownership shall be registered in the name of the deceased's family. It is worth noting that the number of Bahraini women who benefited from housing units of all types reached 1213 women during the period (2014 - 2020), and in implementation of the recommendation of the Supreme Council for Women - based on a study conducted by the Council to monitor the needs of Bahraini women of various categories and social conditions - the «Masaken» project was established in order to provide a housing service for the fifth category, which includes divorced, abandoned, or widowed women, who do not have one or more children, or single female orphans who are over the age of forty, granting this category the housing service as a right of usufruct for life according to the discretion of the Housing Committee, based on the decision of the Minister of Housing No. (909) for the Year 2015 and its amendments.

The housing strategy, especially the social housing model, faced several challenges, most notably the need for larger areas of land, the high cost of extending infrastructure for horizontal urban sprawl, high cost of housing units, and overburdening the public budget. Therefore, modern housing projects resorted to vertical expansion in construction while reducing the building-to-space ratio to its lowest acceptable levels. Therefore, to overcome this challenge, the government of the Kingdom of Bahrain has worked to discover various ways to redefine its traditional role as a provider of housing to the one that facilitates and regulates the process of citizens' access to adequate housing, meaning empowerment rather than submission, giving community members the responsibility to contribute and create conditions for the production of housing on a larger scale, and urging the private sector to invest in housing. This position made it necessary to increase the participation of the private sector in future development programmes, and to increase the participation of Bahraini citizens in the dialogue and decision-making process related to their future.

It is expected that this policy will contribute to stimulating and developing the housing sector, including encouraging external financing and developing the banking sector to provide loans for housing construction, grant real estate deeds, and encourage the construction industry. Also, the government has recently shifted towards adopting the

policy of increasing the number of housing units; apartments in multi-storiy buildings, however, this procedure requires a social change that embeds and instills the culture of shared housing in one building. Another initiative is the inclusion of the private sector in the housing construction process through its assistance in creating the ability to provide housing units in line with the country's general policy, economic environment and support by providing water spaces for reclamation at low prices via land reclamation and marine burial operations, or state-owned lands for the purpose of establishing housing projects on them and building several affordable housing units to meet the citizens' increasing housing demands. A good example of this partnership is Diyar Al-Muharraq project, which will provide 3,043 affordable housing units in the Deerat Al-Oyoun site, and in the same context, the Ministry of Housing launched the "Mazaya" social housing programme in October 2013 as another pivot in the involvement of the private sector represented in real estate development companies.

This programme ensures quick access to the housing service and allows great flexibility for citizens to choose their suitable housing that meets their needs in terms of geographical location, space and internal components of the housing unit. "Mazaya" programme has resulted in the establishment of 84 residential projects in various governorates of the Kingdom and provided a powerful boost to the economic and development wheel in the Kingdom, as the total amount of spending provided by the "Mazaya" programme in the relevant sectors has exceeded 880 million Bahraini Dinars.

Also, one of the best practices implemented by the Kingdom's government to provide adequate housing with the scarcity of government lands reserved for housing projects is that the Ministry of Housing worked on searching for other alternatives to provide land, including activating the partnership between the public and private sectors to benefit from private property and employ it through the creation of joint-stock companies between the public and private sectors and society (special purpose vehicles), which should drive the development process towards the right direction. In this type of company, the Ministry of Housing will be an investor partner to build housing units through private sector contractors with the government budget allocated to housing projects.

While the financial structure of these companies consists of private land owners as partners contributing to the value of their properties, the Ministry of Works, Municipalities Affairs and Urban Planning as a contributing partner in the value of road and sewage construction, the Ministry of Housing as a partner in the construction cost, the Electricity and Water Authority as a contributing partner in the value of the cost of electricity and water, and the Housing Support Fund as a contributor with the added value difference for the planning and improvement of the area, provided that the profits of the Housing Support Fund, in addition to the profits of the ministries concerned with infrastructure and the Ministry of Housing, will be allocated to support eligible families based on approved criteria.

Indicators: \*The average amount spent on housing and transport per family as a percentage of the average annual household income of the tenants: 29% \*The ratio of the average market price of a housing unit to the average annual household income: 10.97%. \*Percentage of people living in affordable housing: 89%.

### (1-1-2-2) Ensure access to sustainable housing finance options

The Government of the Kingdom of Bahrain is facing a serious challenge of providing adequate financing for urban development, and sustainable financing for housing in particular, to be able to meet its increasing demand and reduce the waiting list for government housing services. The Kingdom's government has tackled this challenge in several novel and innovative ways, and its housing plans have been characterised by great flexibility to meet the requirements of citizens of different living, social and economic standards. The government provided support that grants each family a housing unit, or indirect support to facilitate its construction by providing the necessary financing. Accordingly, housing services have witnessed continuous development with a wide variation to keep pace with practical developments and provide innovative and effective housing solutions. The first among these solutions was the establishment of the Housing Bank (a state-owned joint-stock company) in 1979 to contribute to the urban renaissance of Bahrain, and to undertake the task of giving loans to citizens in accordance with the approved terms and conditions. In the Year 2002, and based on the outcomes of the housing policy study of the Kingdom of Bahrain carried out by the government in cooperation with the United

Nations Human Settlements Programme (UN-Habitat), the "Social Housing Financing" programme was developed, which allows housing applicants to quickly obtain adequate housing by purchasing a housing unit of their choice, through real estate financing amounting to 81,000 Bahraini Dinars (USD 214,854), which the housing service applicant obtains from the commercial or Islamic banks participating in the programme, and pays it in a monthly installment that does not exceed 25% of his/her monthly income, provided that the government pays the difference between the loan's actual monthly installment and the amount paid by the beneficiary. This comprehensive financing system to support social housing is considered a modern and distinguished system that matches most of the international systems for affordable social housing financing.

In 2013, the government launched the "Mazaya" social housing financing programme, which allows citizens to purchase ready-made housing units from the private sector with financing from a local bank over a period of twenty five years, provided that the government supports citizens in purchasing such units. This programme was launched by the Ministry of Housing in cooperation with the Ministry of Finance and National Economy (MOFNE) and participation of Eskan Bank, which is a realistic portrayal of the Ministry's endeavours to achieve sustainability of the Kingdom of Bahrain's housing and social files, through a partnership with the private sector, which represents one of the main pivots the housing plan is focusing on, which the ministry began implementing in the Year 2012. It is hoped that this programme will contribute to finding a quick solution to reduce the gap between housing requests and the supply of housing projects, by providing financial resources to finance the purchase of citizens with housing requests on the waiting lists via the private sector, as real estate developers build housing units according to the specifications and requirements of the Ministry of Housing, which in turn reviews them and grants the project the status of a « project conforming to social housing specifications», which enables it to target citizens on the waiting lists for housing services, and qualifies them to obtain government support granted to citizens when benefiting from the governmental social housing service. It is worth noting that 9,333 citizens have benefited from this programme since its launch and until October 2021.

Indicator: \* The ratio of real estate debt to the GDP reached 18.1% in the Year 2020.

### (1-1-2-3) Establish security of tenure

The Bahraini Constitution provides legal protection to ensure equality between citizens of both genders in the ownership, tenure, inheritance and bequeathing of lands and properties. The constitution to reinforce the principle of inviolability of private property in Article (9)-c, which stipulates that "Private property shall be well protected. No one shall be prevented from disposing of his property except within the limits of the law. No property shall be expropriated except in the public interest, in accordance with the law and provided that just compensation is paid."

As for the state's expropriation of real estate for the public benefit, the first reference to it was made in the Municipalities Law promulgated in 1920, which defined the main principles of expropriation and compensation. While in 1944, a new law was promulgated that authorised the municipality to expropriate in the public interest and for the purposes of widening the roads, as it was granted the right to widen the roads at three feet without compensation, and with compensation if it exceeds that, and the property shall be compensated in the case of public cut.

This law continued to be in force until 1970, after which several laws were promulgated to enhance the regulation of dealings with private property, the most important of which are: Decree-Law No. (8) of the Year 1970 on the expropriation of real estate for the public benefit, Civil Law by Decree No. (19) of the Year 2001, which specified the different legal aspects, the most important of which being the types of obligations related to ownership, contracts, rents, right of ownership, tenure, usufruct rights, housing, use, and mortgage, Decree-Law No. (19) of the Year 2002 on the disposal of state-owned lands, and Law No. (39) of the Year 2009 on the expropriation of real estate for the public benefit, in which the procedural aspects of expropriation and compensation were developed and modified.

As for leasehold, there is a law in Bahrain that regulates the relationship between the owner and the tenant since 1944, and it was amended several times until it was repealed and all its amendments were issued with the promulgation of the Real Estate Law No. (27) of the Year 2014, followed by Law No. (13) of the Year 2020 amending certain provisions of the Real

Estate Lease Law promulgated by Law No. (27) of the Year 2014, which established rules regarding rental tenure, real estate registration, and the secure tenure of housing.

## (1-1-2-4) Establish slum upgrading programmes

Bahrain is characterised by the absence of favelas or slums, as the government has made and is still making great efforts with strides to rehabilitate the old areas in the traditional neighbourhoods of all major cities, while preserving their traditional architectural character. As the government has developed a number of old residential neighbourhoods in order to preserve their social fabric and historical character. For example, in the governorate of Muharraq (the old capital of Bahrain), which possesses a historical legacy, and after developing the "Halat Bu Maher" area, the "Furjan" initiative succeeded in developing a number of neighbourhoods in the governorate, while preserving their traditional character and resettling of the indigenous residents of the area there. The development was made with high quality construction, and roads and corridors that simulate the history of those areas. This contributed to the selection of Muharraq as the "Capital of Islamic Culture" for the Year 2018, given its long history and human legacy, in addition to the distinct civilised elements it embodies.

Urban development and urbanisation face a major challenge, which is the transformation of the old traditional areas in the hearts of the cities of Manama, Muharraq and some other towns into a rental residential shelter for expatriate workers, after their indigenous residents moved to other areas in the Kingdom. Furthermore, the Kingdom has made great efforts to contain expatriate foreign workers in areas far from the old neighbourhoods and close to their industrial and construction sites, and then neutralise their social effects on the lives of citizens. In addition, the Ministry of Housing has developed and rehabilitated these areas through the "Ramshackle Houses Renovation Project" to sustain the population in those areas. In this context, the Kingdom has established a special department concerned with urban development, which has implemented many projects and initiatives for the rehabilitation and reconstruction of traditional urban areas, in cooperation with the municipal councils. Moreover, the government has adopted the "Towns and Villages Development Project", which aims to advance and develop society to provide a safe and dignified life for all citizens.

This project has two important aspects; the restoration and maintenance of houses, and the installation of waterproofing systems. The aspect of restoration and maintenance is concerned with rebuilding ramshackle houses of families who are unable to repair and rebuild their homes in an acceptable manner, within the framework of well-studied and clear regulations and procedures. Since its launch in the Year 2004, the maintenance and restoration of more than 3,000 homes was completed, including 279 homes that were restored and maintained between the Years 2016 and 2020.

It is noteworthy that the residents of these properties were housed in the same location and among their neighbours, as the beneficiary family gets transferred to temporary housing for a period of six months or more, during which the state pays the rent for the temporary housing, and then the family returns to its home after the completion of its restoration and maintenance. The project included rebuilding homes equipped with all health and service facilities, and the government incurred all the costs of the families' temporary housing. As for waterproofing systems, the government installs them on the roofs of limited-income families' homes long enough before the start of the rain season, using the latest types of waterproofing systems, in addition to repairing damaged roofs. Waterproofing systems were installed for more than 8,122 houses during the period (2007 - 2020), including 719 houses that were completed during the period (2016 - 2020). In addition, the government takes care of alleviating limited income families whose homes were exposed to fire as well, by providing financial compensation that contributes to the construction and restoration operations for the damages resulting from such fire, and this compensation is granted according to specific conditions.

Indicators: \* There are no people living in favelas, slums or inadequate housing in Bahrain. \*Percentage of cities/towns with (informal) slum development programmes is 100%. \* Number of towns with annual budget allocations addressing any of the five deprivations for slums and inclusive public spaces in known slums: Not applicable.

# (1-1-2-5) Integrate housing into urban development plans

Over the past three decades, lands turned into a commodity that is considered a stock of wealth in the face of inflation in the prices of goods and services. Also, the population

increase has led to an increase in demand for construction lands, which resulted in an unprecedented rise in land prices throughout the country. This situation requires the country's readiness to meet the increasing demand for housing and infrastructure, and Bahrain has faced the problem of land shortage for urban development by sea reclamation, but the marine areas available for reclamation are decreasing, as each new project deducts from the balance of the country's territorial waters, whose area is now estimated at 7,484 km<sup>2</sup>. Resorting to these virtual lands is an absolute necessity, despite the environmental precautions, however, this must be done considering the actual needs. In this situation, and despite the government's great efforts over more than fifty years in providing social housing, there is a continuous increase in the number of requests for housing services in light of the shortage in land stock suitable for residential use and its high costs, as about 4,000 new requests are added to the list of housing services annually, constituting a new challenge for the government to respond to these requests in light of limited resources. Therefore, the National Strategic Structure Plan 2030, in its second version (2016), dealt strictly with the issue of integrating housing into urban development plans, when it specified exactly the areas designated for urban purposes and their future expansions throughout the four governorates of the Kingdom. This step entailed necessarily the allocation of financial resources for housing projects, as the proportion of government spending allocated to housing projects and utilities amounted to 32% of the total budget of projects for the Year 2020. Housing projects vary between building and construction in major housing projects, and maintenance, restoration and renovation in old areas within the framework of urban renewal procedures.

Indicators: None of Bahrain's population lives in favelas, slums or inadequate areas. \* Percentage of cities/towns that have integrated housing policies and regulations into their local development plans: All four governorates. \* The percentage of total investment in housing and community facilities (in both the formal and informal sectors in the urban area) ranged between 7% of the GDP in the Year 2012 and about 3% of the GDP in the Year 2019. \* Percentage of government spending allocated to housing projects and utilities reached 32% of the total budget for projects for the Year 2020.

#### (1-1-3) Access to basic services

# (1-1-3-1) Provide access to safe drinking water, sanitation and solid waste disposal

Due to its location in the region of hot dry deserts (which is characterised by a high-temperature climate, low rainfall, and high evaporation rates due to the intensity of solar radiation in winter and summer), the Kingdom of Bahrain is characterised by scarcity of rainfall, with an annual average of no more than 74 ml.

Also, this modest amount of rain is characterised by its irregularity and its high temporal concentration, as the country does not have any surface water flow, except from some temporary sluices following the rain, which soon disappear due to the internal leakage, the porosity of the surface rocks, or evaporation due to high temperature. For its water resources, Bahrain has historically relied on one major source, which is groundwater that comes out of wells and natural land and sea springs, to meet the needs of the population for numerous uses.

However, the large population growth that accompanied the economic development processes that led to the diversification of economic activity and a significant rise in the living standards of the population, ultimately caused a significant increase in the water consumption rates of groundwater to the point of over exploitation, which in turn led to a severe decline in its quantities and an increase in the salinity of its water. In light of the climatic conditions, the successive decline in groundwater reserves and the high cost of desalinated water production, the issue of water provision will remain one of the most important challenges facing the Kingdom, especially, in light of the high population growth rates it is witnessing.

Since Bahrain is below the absolute water poverty line (500 m<sup>3</sup>/person per year), water becomes a major obstacle to development due to its impact on the standard of living, health and environment, and with the rapid high population growth, water resources suffer from great pressure that resulted in the decrease of the rate per capita water consumption

from 117.6 m<sup>3</sup> per year in the Year 2006 to 113 m<sup>3</sup> in the same year, then increased again to 118.4 m<sup>3</sup> in the Year 2018.

Given the state's commitment to providing safe drinking water to all, a continuous increase in the injection rates of investments in the establishment of new desalination plants was necessary, as they are the main source of drinking water in Bahrain. The Kingdom's government has worked to secure a capable infrastructure for water resources and water quality management to provide safe drinking water in accordance with the safety and quality standards of the World Health Organisation (WHO) and the Gulf Cooperation Council (GCC) specifications for drinking water. The government subsidises the costs of operating systems, water treatment and distribution, to deliver it to the consumer at reasonable prices.

The entire population enjoys clean water supplies through both the water transmission and distribution networks spread in all regions of the Kingdom, which transport desalinated water from a number of seawater desalination plants and groundwater desalination plants of various capacities and technologies, with a current production capacity equal to about 703,000 m<sup>3</sup> per day. Also, the government has a strategic reservoir of groundwater estimated at about 114,000 m<sup>3</sup> per day to be used only in emergency cases.

In addition, the Kingdom has been improving the use and preservation of water resources by rationalising their use for various purposes, while reducing water wastage in water networks, improving water consumption meters to preserve it, increasing storage capacities and developing water reuse programmes. Also, the Electricity and Water Authority (EWA) is making unremitting efforts to reduce water consumption by monitoring the volumes of water connections at its sites, as the sites' water requirements are surveyed and analysed according to the standards followed for various categories, as well as studying and evaluating new applications according to the water plumbing system. Furthermore, the Authority distributes water rationalisation devices, such as water flow sensors and irrigation devices to control daily water consumption.

At the same time, the country concerns itself with conducting research and studies on how to capitalise on the little amount of rain that falls in Bahrain, to contribute to bridging the water gap that the Kingdom suffers from. In the same context, modern irrigation systems such as

the sprinkler and drip systems have been introduced in order to save water consumption in the agricultural sector despite its small scope, in order to preserve the agricultural soil from salinisation. Also, the increased demand for clean, pure water considering the increasing cost of water desalination constitutes an additional burden on the public budget that the state constantly bears, as the government subsidises domestic water consumption by about 65% of the cost of production.

As for sanitation, disposal of sewage water is one of the basic needs of humans that ensure a clean healthy environment, but its services suffer pressures similar to those experienced by safe clean water supplies, which is the result of rapid growth of population and urban developments. The Kingdom of Bahrain has started to establish and develop the infrastructure of the sewage network and its facilities since the Year 1971, which led to Bahrain having a sewage network consisting of: a network of sewer lines consisting of about 173 kms of large main lines, about 1,589 kms of main lines, about 2,394 kms of sublines, 170 kms of pumping lines, about 48,924 main manholes, about 183,386 subsidiary manholes, 63,379 small subsidiary manholes, and 585 sewage pumping and lifting stations.

In addition, the government operates and manages 4 main wastewater treatment plants with a total capacity of 357,000 m<sup>3</sup> per day, and 12 other sub-stations with a total capacity of 13,000 m<sup>3</sup> per day. While the private sector operates several other stations as well, especially after the promulgation of Decree-Law No. (41) of the Year 2002 to privatise government activities in wastewater.

The process of privatising wastewater services has depended on the development of the National Master Plan for New Sanitation Services (NMPSES), in which the private sector plays a major role in managing the new plants that will be built in response to the growing population and urban growth in the Kingdom. At the level of rainwater, there is a network for its drainage consisting of more than 1,445 kms of main and secondary lines to collect water from about 19,000 manholes, 7,500 traps, and 50,000 grooves, all pouring into 100 pumping and lifting stations. However, the main challenge in this field is the high cost of sewage networks construction due to the high cost of lifting and treatment plants and

pipe networks. Therefore, there is an urgent need to allocate additional budgets to connect new housing projects to the public utilities network, with the development of the sewage strategy to be suitable for different challenges until 2030. Also, one of the best practices in the sanitary sector is the reuse of Treated Sewage Effluent (TSE) in Bahrain since the late eighties of the last century, mainly in irrigating gardens, parks and landscaping on main streets.

It should be noted that this has helped preserve the groundwater reserves, and studies are currently being conducted in cooperation with the Ministry of Industry, Commerce and Tourism (MOICT), and the National Oil and Gas Authority (NOGA) to use treated water for purposes other than irrigation, to encourage the industrial sector to use treated water as an alternative to indirect production processes such as sand washing and cooling, of which is within their efforts to conserve water resources.

The efforts of the Kingdom of Bahrain in wastewater management have been recognised by it ranking first in the Middle East and North Africa (MENA) region in wastewater management based on the Environmental Performance Index 2020 issued by Yale University.

As for solid waste collection and disposal, the Ministry of Works, Municipalities Affairs and Urban Planning (MOWMAUP) provides Bahraini families with biodegradable waste bags, through designated electronic self-service machines in some municipalities, or directly through the offices of waste bags distribution in the municipalities of the four governorates. Also, the Ministry provides more than 20,000 containers around residential neighbourhoods, which are washed and disinfected on a regular basis.

At the same time, waste sorting containers from the source for recycling are available in 77 locations in residential neighbourhoods to benefit from the different recyclable materials such as plastic, paper, metal, and glass. Solid waste is disposed of in Bahrain; both domestic and commercial, using the best safe methods. At the beginning of the Year 2019, the Ministry of Works, Municipalities Affairs and Urban Planning, in partnership with the private sector, established a facility to recycle all demolition and construction waste, the amount of which is estimated at about 40% of the total waste received at the landfill.

Indicators: \* According to the data of the Information and e.Government Authority (IGA) for the Year 2020, drinking water networks cover 100% of the population. \*The percentage of the population served by managed sanitation systems reached 100% of the country's population in the Year 2020. \* The percentage of municipal solid waste collected and managed in controlled facilities was 100% of the total municipal solid waste generated by cities/towns in the Year 2020

### (1-1-3-2) Ensure access to safe and efficient public transport system

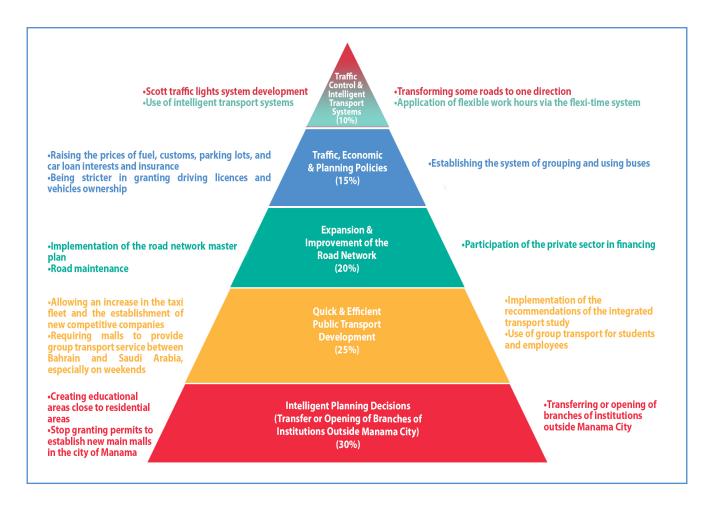
The population increase and successive housing projects contributed to the growth and expansion of the road network, but the steady increase in the number of vehicles (about 26,000 vehicles annually) due to the rising living standards and the limited role of public transport has caused an increase in traffic congestion and traffic jams, which in turn led to an increase in the rates of air pollution, a higher number of traffic violations and accidents, and the decline in production rates, hence the current transport sector becomes inconsistent with development.

As congestion rates on the roads in Bahrain have witnessed a continuous increase, as the density of vehicles on the roads exceeds 200 vehicles/km, while vehicles density exceeds about 500 vehicles per 1000 people (two people per vehicle), and if the number of private cars continues to increase as mentioned, it is expected to be equal to the number of the country's population by the Year 2030. Therefore, in an effort to reduce traffic congestion, avoid its negative effects, and ensure smooth traffic, the Kingdom has adopted a series of integrated policies and procedures on two levels: expanding and improving the road network, and developing fast and efficient public transport. These two levels constituted 45% of the total policies and measures taken to address traffic congestion problems (Figure1).

And at the level of Bahrain's road network, it is known for its high quality, availability of an integrated infrastructure between all its transport systems, and its secure traffic, due to the investments injected towards its infrastructure that constituted a major component of

Figure 1: Integrated Measures to Deal with the Traffic Congestion

Problem in The Kingdom of Bahrain



the government's budget over the past five decades. Since the Year 2007, the Kingdom's government has adopted a strategic plan and expansion programmes for the road network and flyovers at the main intersections to accommodate the increased traffic. As a result, Bahrain has achieved an advanced position around the world in the field of paved roads, with the proportion of these roads exceeding 85% of the total lengths of the Bahraini road network. While the total lengths of the road network increased from 1,977 kms in the Year 1995 to 4,940 kms in the Year 2020, leading to a significant decrease in the area served by one kilometer of roads from 0.30 km<sup>2</sup> in the Year 1995 to 0.16 km<sup>2</sup> in the Year 2020.

Table 4: Percentage of the population with adequate public transport (%) by governorate and gender

Indicator	Governorate Gender	Condon	Year
Indicator		Gender	2018
Percentage of the population with adequate public transport	Capital	Male	16.1
		Female	19.4
		Both	17.2
	Muharraq	Male	19.1
		Female	17.3
		Both	18.4
	Northern	Male	29.2
		Female	21.8
		Both	26.0
	Southern	Male	21.9
		Female	24.6
		Both	22.8
Percentage of elders with adequate public transport	Capital	Both	24.4
	Muharraq	Both	20.6
	Northern	Both	16.8
	Southern	Both	23.2

Source: Information and e.Government Authority

# (1-1-3-3) Provide access to modern renewable energy

The Kingdom of Bahrain is characterised by a high-quality electricity network that covers all parts of the country, of which the biggest share goes towards household consumption in comparison with the other various consumption sectors. With higher living standards, this consumption is steadily increasing, and is expected to continue to increase, as household consumption and the per capita share of electrical energy have witnessed a continuous increase, reaching currently 12,750 kilowatt/ hour per year.

The generation of this energy depends mainly on thermal plants, and with the increase in demand for electrical energy with continued government subsidy for domestic consumption by about 85% of the cost of production, transmission and distribution, and the low cost of producing electricity from renewable resources, specifically from solar energy, the Kingdom of Bahrain has resorted since 2014 to develop plans and strategies to diversify energy sources to include renewable energy sources, which has become an important competitor for fossil energy, and benefit from technologies and programmes to improve energy efficiency and rationalise its consumption. Such plans and strategies were prepared by the Sustainable Energy Authority (SEA) being the governmental entity concerned with sustainable energy in the Kingdom of Bahrain.

The SEA has commenced the preparation and implementation of two national plans, one of which is to increase the percentage of renewable energy sources in the total mix of produced and consumed energy, and the other is to raise the efficiency of use and overall consumption of energy, while encouraging investment in this sector. The first plan; the National Renewable Energy Plan (NREP) includes 3 policies and 7 main pivots for renewable energy projects with the aim of increasing the percentage of the contribution of (clean) renewable energy sources in the total mix of produced and consumed energy at the national level to 5% by 2025 (equivalent to 250 Megawatts), then to 10% by 2035 (equivalent to 710 Megawatts), which will lead to rationalising the use of fossil energy sources such as natural gas, and subsequently, reducing greenhouse gas emissions. Consequently, by reaching the first percentage, about 480 gigawatts/ hour can be generated per year of clean energy at the national level, which means saving 5.7 million British Thermal Units "MMBTU" of natural gas annually, in addition to reducing greenhouse gas emissions that negatively affect the environment and health by an estimated 393,000 tons of Carbon Dioxide annually.

As for the second plan; the National Energy Efficiency Plan (NEEP), which includes 22 initiatives that are being worked on in cooperation with various sectors and authorities in the Kingdom with the aim of improving energy efficiency by 6% by 2025. Since the adoption of the two plans and their objectives in January 2017, the Kingdom has managed in a short period of time to achieve 70% of the objectives set for the Year 2025.

Moreover, the Kingdom has developed legislations to improve the investment climate in the renewable energy sector to encourage the private sector to participate in this sector, which has led to attracting investments estimated at more than BD 140 million, as well as enabling the Kingdom of Bahrain to meet its national obligations such as the Economic Vision 2030 and the Government Action Plan, regional commitments such as the framework of the Arab League, and the international ones such as the Paris Agreement to Address Climate Change and the United Nations Sustainable Development Goals (UN SDGs).

The adoption of the two plans and the start of the government's adoption of a number of initiatives in its projects had a clear positive impact on saving electricity and energy production costs, which constituted an important indicator for the private sector of the extent of the government's seriousness in supporting renewable energy and energy efficiency projects and initiatives, which prompted the private sector to support the government's directions in the transition towards sustainable energy and investing in its projects. The SEA has worked on several pivotal and essential steps and initiatives to advance the sustainable energy sector and achieve national goals, of which the most important are as follows:

1. Allowing individuals to install renewable energy systems on the roofs of homes and facilities starting from January 2018, benefit from the electricity produced for their consumption, transfer the surplus to the government's electricity network and get a discount on their bills through net metering policies.

2.Implementing The solar energy project on the roofs of government buildings and attracting private investors to develop renewable energy projects: The first phase of this project consisted of installing solar energy systems on the roofs of facilities and buildings of 8 government schools in December 2020 as a first package to produce 3 Megawatts of solar energy. Also, it is expected that this initiative will reduce the Ministry of Education's electricity consumption costs by 20-33%. Whereas the second phase of this project came

to realisation when the SEA received requests from 23 ministries and government agencies to install solar energy systems on the roofs of their buildings.

3.Preparing feasibility studies and proposals for the Ministry of Housing to integrate solar energy solutions in the new towns and housing projects, and use them in lighting streets, beaches and parks.

4.Preparing the first Interactive Wind Atlas on 12<sup>th</sup> April 2018 to activate wind energy projects on the onshore, coastal and marine areas in deep waters.

5.Starting work on the waste-to-energy initiative as an important and pivotal element of the national strategy for waste management, which the concerned authorities are working on. This includes a feasibility study of several techniques of waste treatment of all kinds to benefit from them to produce energy from alternative resources, estimated by the SEA at about 50 Megawatts.

6.Expanding the construction of solar energy plants on a large scale by resorting to creative and innovative solutions to overcome the limited area and lands available for the implementation of central renewable energy projects, and turn to distributation systems, using the roofs of buildings, government facilities, parking lots, and others to install distributation systems and light posts to achieve financial savings for the government. Furthermore, the lands and sites suitable for these projects have been identified, their expected production has been estimated at more than 50 Megawatts of clean energy, their sites are undergoing assessment, and the necessary approvals are being obtained in preparation to present some of these lands and sites to the private sector as investment opportunities in this field.

7.Approving the construction of a central solar energy plant, by the Cabinet, in the landfill area in Askar area, with a production capacity of 100 Megawatts of clean energy. The tender for the project was launched in 2018 by the Electricity and Water Authority (EWA).

8.Encouraging increased investment in this field by cooperating with the Ministry of Industry, Commerce and Tourism (MOICT), the Economic Development Board (EDB), and the Council for Regulating the Practice of Engineering Professions (CRPEP) to create a commercial sub-activity category for renewable energy engineering for renewable energy consulting companies to encourage increased investment in this field, which was activated on the electronic platform "Sijilat" in July 2020.

9.Preparing the policies of the Green Building Guide and integrating it into the electronic platform «Benayat», which took place in cooperation with the Ministry of Works, Municipalities Affairs and Urban Planning (MOWMAUP). The guide includes ten mandatory requirements prior to granting a building permit and more than 64 optional requirements that are applied in a phased approach, starting with government buildings and facilities.

10.Preparing green building classification policies, which complement the policies of the Green Building Guide, according to which buildings are evaluated and classified according to their fulfillment of mandatory and optional requirements, as well as the savings they achieve in their electricity costs and energy efficiency.

11.Preparing sustainable financing packages designed to encourage investments in renewable energy projects, by working with banking institutions and banks and signing a joint cooperation agreement with the Labour Fund "Tamkeen" and a number of banks in the Kingdom, in order to expand support services within the scope of the Institutional Financing Programme, to enable institutions wishing to obtain funding for the purchase and installation of power generation solar panels.

12.Cooperating with the Bahrain Commercial Facilities Company B.S.C. (BCFC), the SEA launched an initiative to finance energy in solar energy projects under the name "The Sun"; a financial product that allows those wishing to obtain financial facilities to install solar energy systems on their buildings or facilities, through a lease-to-own system for rented solar energy systems, which targets the owners of all kinds of companies and owners of real estate and homes, and provides a set of free services, which include the study of the site and actual consumption of electricity.

As for the efforts of the SEA within the framework of the National Energy Efficiency Plan (NEEP), this plan includes 22 initiatives to raise energy efficiency across the country's residential, commercial, industrial, governmental, electrical and transport sectors, in addition to many cross-sectoral initiatives (redirecting electricity subsidies, spreading awareness and information, institutional infrastructure, and training for the local market), which will result in an improvement in the level of energy efficiency by 6% by 2025 (from the average consumption for the period (2009-2013), which is equivalent to saving 5,800 GWh of consumption, as well as significant financial savings estimated at BD 230 million

annually (if all initiatives are implemented and the national goal is achieved), in addition to the cumulative reduction in greenhouse gas emissions by about 3.4 million tons.

Currently, the SEA is encouraging investment in renewable energy and the development of energy policies to make them sustainable, in addition to working on evaluating the institutional needs and legal tools necessary to advance the renewable energy sector and energy efficiency in the Kingdom of Bahrain, as well as working on bridging the gaps and building capacities so that the sustainable energy sector can contribute to the diversification and support of the economic pillars in order to achieve their sustainability and the comprehensiveness of all development strategies.

Furthermore, the SEA is currently working on numerous initiatives and projects, in addition to supporting investment efforts in renewable energy projects, such as solar and wind energy projects on land, coastal and deep water areas, with a phased methodology and pilot projects that are circulated and expanded when their feasibility is demonstrated, and the Law of Buildings and its related procedures have been amended to include construction projects for government and private buildings, in addition to residential buildings, within the framework of rationalising electricity consumption.

Indicator: \* Until the Year 2021, a package of approved projects and initiatives to achieve 70% of the national goal to increase the share of renewable resources in the total energy mix have been identified, which shall reach 5% by the Year 2025.

#### (1-1-3-4) Access to information and communication technology

The Kingdom of Bahrain has taken the lead in the Telecommunication Infrastructure Index, as it ranked first in the Arab world and 31<sup>st</sup> globally in the ICT Development Index (IDI); a composite index that monitors and compares ICT developments across countries throughout time, in the "Measuring the Information Society Report (MISR) 2017" issued by the International Telecommunication Union (ITU).

Indicators: \*The number of home Internet subscriptions reached 2,010,168 in the Year 2020. 
\*The percentage of mobile subscribers for the Year 2020 reached 119% \* The percentage of Internet users in the Kingdom of Bahrain is 99.70% \* The percentage of mobile Internet subscribers is 124% \* The percentage of fixed Internet subscribers is 10% \* The percentage

of coverage of mobile networks is 100%. \* The percentage of coverage of homes with a broadband network is 78%. \* The percentage of companies covered with the broadband network is 100%.

# (1-2) Sustainable and Inclusive Urban Prosperity and Opportunities for All

(1-2-1) Inclusive urban economy

# (1-2-1-1) Achieve productive employment for all including youth employment

Bahrain's economy is primarily an urban economy, in which the manufacturing sectors, financial projects and services play the greatest role, while the agriculture, animal husbandry and fishing sector constitute less than 0.5% of the gross domestic product (GDP), and the mining and quarrying sector constitute about 19.5% of the country's actual GDP in the Year 2020. By adopting a free economic approach, the Bahraini economy has witnessed radical structural transformations since the seventies of the twentieth century, which resulted in the country's economic base expanding, its sources of income diversifying, and its economic map changing radically, as the contribution of the non-oil sector amounted to BD10 billion in the Year 2020 (more than 81.38% of the GDP at constant prices), after it was BD 7.7 billion in the Year 2011 (about 78.6% of GDP at constant prices). With this economic expansion, the country's workforce base expanded to reach 876,000 in the Year 2020, in which Bahrainis formed about 30% (254,000). While the contribution rates of Bahrainis to the labour force (15 years and over) in the country have increased from about 48% in the Year 2012 to about 51% in the Year 2020.

Also, the female contribution rate increased significantly from 32.7% in the Year 2012 to 42.8% in the Year 2020, while the male rate witnessed a noticeable decline from 63.2% to 59.7% between the two years. The remarkable rise in female participation may be due to the high educational levels of women, which contributed to their economic empowerment and increased their participation in the economic activity, as their share in the Bahraini labour force increased from less than 20% in the Year 1991 to about 26% at the beginning of the millennium, and then to 42.8% in the Year 2020.

With the implementation of structural economic reforms at the beginning of the new millennium, the country's economy has become more open to international trade, thus the Kingdom has encouraged the employment process in the private sector, and has actively sought to improve the wages of Bahrainis working in this sector, which has contributed to the Kingdom's success in maintaining the unemployment rate at 4.9% among the economically active Bahrainis (Census 2020), and the decrease in the general rate of unemployment relative to the total labour force to only 1.4% of the total of those, who are economically active in the country (Census 2020).

Demographically, the Bahraini population pyramid is characterised by its youth, as the population of those up to the age of 24 of both genders constitutes about 48% of the total Bahraini population, and youth (15-24 years) of both genders constitute less than a fifth of the total Bahraini population (17.5% of the 2020 Census). These demographic facts predict an increase in the number of those entering the labour market within a few years. Accordingly, this category is highly crucial to sustainable development because it represents the new entrants to the labour market, as well as the basis for future population growth.

All these facts resonated with the Kingdom's government, in addition to the National Youth Strategy that the Kingdom developed in cooperation with the United Nations Development Programme (UNDP) in the Year 2005. To complement it, the Government Action Plan (2019 - 2022) included an explicit emphasis on supporting youth in all government action plans and initiatives, by focusing on their needs, believing in their latent abilities, right to participate in public life, and role in building the future society via a number of important initiatives aimed at encouraging and supporting the youth; through training, educational and qualification programmes.

Also, work is underway in the field of planning innovative projects and employment plans for the youth, as well as strengthening programmes to support micro enterprises over the next two decades, which shall ensure self-employment for young people and benefiting from their great potential in promoting and advancing the national economy. As microfinance initiatives and projects to support productive families have contributed to convincing job seekers and graduates of the educational system that there are alternatives to employment in the government and the public sector. However, this issue faces an important challenge, which is the poor coordination between educational outputs and the needs of the labour

market, due to the reluctance to study some academic specialties and the increase in the number of graduates from unwanted disciplines. Therefore, the government has worked to expand the scope of employment and training initiatives and programmes aimed at requalifying the unemployed in the workforce, which kept the unemployment rate at its low and safe limits.

Also, another challenge is the tendency of the scarce competencies and expertise to work in the private sector, due to the privileges it provides, so the Civil Service Bureau (CSB) launched an initiative to bridge the gap between the public and private sectors to complement the efforts of the Ministry of Labour and Social Development (MLSD) by including many of the benefits in the labour law for the private sector, which are not fewer than those offered to the public sector workers, but may surpass them.

In addition, there are numerous important initiatives aiming to expand the base of national competencies with outstanding performance, such as the strategic workforce planning system initiative to ensure the availability of employees required for government bodies according to the actual work need, restructuring government bodies by creating several jobs while limiting unnecessary administrative expansion and inflation in government facilities through the use of a clear mechanism for building the organisational structures of government bodies, transparency in the CSB's announcements for vacancies and constantly striving to empower women and activate their role in working life and integrate them into the national development plans to occupy leadership, executive and decision-making positions by establishing permanent committees for equal opportunities in various ministries, government bodies, and some private sector institutions.

Within the framework of best practices, the National Observatory for the Needs of the Labour Market was established, and the vocational training sector has been organised in an advanced and comprehensive manner, commensurate with the improvements and developments of the market, which will contribute to encouraging the private sector to invest in training and qualifying young job-seekers at the highest levels.

#### (1-2-1-2) Support small and medium-sized enterprises

To enhance the role of small and medium-sized enterprises in the local economy, the Kingdom of Bahrain has adopted a number of initiatives aimed at supporting small, medium-sized and micro enterprises, through Bahrain Development Bank (BDB), Labour Fund Authority (Tamkeen), Bahrain Business Incubator Centre (BBIC), Family Microfinance House (FMH), and Ebdaa Microfinance Bank Bahrain (Ebdaa Bank); the latter two banks provide financing and training to clients, as well as providing savings tools, development, and technical assistance, and carry out feasibility studies for micro-projects. All these institutions provide financing, training, advice and entrepreneurship support in order to contribute to promoting economic opportunities and local development. The BDB offers soft financing loans at low interest rates for small and medium-sized enterprises, with a value that reached to about BD 48.1 million in the Year 2020, with an increase from the previous year at 106% despite the conditions imposed by the pandemic. Furthermore, 155 projects benefited from the services of business incubators affiliated with this Bank group, which include BBIC, Women Development Centre (Riyadat) and the Farmers Market.

At the same time, BBIC provides its support to these projects by providing sites with suitable spaces to operate the projects, while providing new companies with advisory, training and other public services to ensure the success of these projects and the growth of their ability to produce and compete in the local and global markets. Since its establishment in the Year 2006, the Labour Fund "Tamkeen" has launched multiple initiatives to facilitate the financing of economic initiatives for productive medium-sized, small and micro enterprises, of which the most important of these programmes and initiatives are:

- 1. The Concessional Financing Programme targeting small and medium-sized enterprises in Bahrain, by supporting profit rates charged by commercial banks and partially guaranteeing borrowers to increase their creditworthiness.
- 2.Providing microfinance to micro enterprises and productive families via the cooperation of "Tamkeen" with FMH and Ebdaa, as this project achieved great benefits for the micro enterprise sector compared to the costs and led to the creation of new job opportunities for Bahrainis.

3. Supporting business incubators and accelerators in the Kingdom of Bahrain in order to advance the businesses of emerging institutions and increase their profitability. More than 400 institutions have benefited from this support, with a total budget of more than USD 13 million during the period (2011-2021).

4. Supporting institutions operating in the Kingdom of Bahrain to establish and develop their infrastructure by purchasing operational devices and equipment, developing a communication and information system while stimulating automation and digital transformation, supporting the marketing needs of institutions by providing the commercial identity and participating in exhibitions inside and outside the Kingdom of Bahrain, and other aspects of economic empowerment for these institutions. Support was provided to more than 13,000 institutions with an amount exceeding USD 500 million during the period (2007 - 2021), in addition to support aimed at developing and improving technology and productivity.

5.Supporting employment and training projects in institutions operating in the Kingdom of Bahrain, which aim to increase and develop productivity through the employment and development of national labour in these institutions. Tamkeen has supported nearly 113,000 employment and training opportunities in the Kingdom, with a budget of more than USD 450 million.

In the same context, Ebdaa was established in the Year 2009 to help limited income people engage in various new and innovative projects and expand the middle class that ensures sustainable national development. This is done by supporting microfinance projects to empower and develop skills of disadvantaged groups, especially women, to improve their living conditions through self-employment, in order to ultimately move from the interim incubation period to a new level of entrepreneurship. This bank has provided 16,490 loans since its establishment until June 2021, with a total value of BD 19.66 million.

The "Khatwa" Project for Home Projects, one of the initiatives of MLSD and under its supervision, which came to represent one of the best practices in this regard, as it provides all the needs and facilities necessary for families and individuals to start home projects that provide work opportunities for the family from home and contribute to raising their income. The programme provides its services through innovative professional and specialised

commercial training programmes, advisory services, and practical and theoretical technical assistance, to create extraordinary innovative designs and ideas. This project is an addition and improvement of the Productive Families Project in the Kingdom of Bahrain, which has been in implementation since the Year 1978. The ultimate goal of the Khatwa Project is to support productive families to provide a new generation of products and distinctive designs, which since its launch in the Year 2011 has been able to attract more than 1,170 home projects and provide more than 1,880 services through the various integrated sections represented in the Productive Home Licence Registration Office, and project support centres such as the Design and Innovation Centre for Product Development and the Centre of Excellence for Micro enterprise Development that provide administrative and technical support services through specialists in this field. In addition to halls for conducting training workshops, thus forming an integrated organisation aimed at creating the appropriate conditions for every home owner in need of training, empowerment, access to the labour market and marketing their products, while ensuring retirement in the future by offering optional insurance in the Social Insurance Organisation (SIO).

To complete its mission in supporting productive families, the Centre provided marketing outlets for these families' products in the Capital Mall for Bahraini Handmade Products, Sitra Centre for Productive Families, Al-Sayah Centre for Home Based Businesses, and the Permanent Exhibition for Productive Families at Bahrain International Airport, in addition to opportunities to participate in internal and external exhibitions. Also, the Department of Family Development at MLSD provides training courses and programmes in the social centres of the ministry in several areas that correspond to the needs of the labour market, working to achieve a development goal, in addition to creating skilled citizens who are capable of production and work in the field of their skills.

At the same time, FMH, being the first specialised Islamic bank to provide various services, is working to provide micro loans to limited income groups without bank guarantees, with the aim of helping them establish income generating projects, in addition to specific financing services. The project has achieved remarkable successes in serving a large segment of needy families by lending them small amounts to start implementing their projects.

This project contributes to the implementation of the requirements of the National Economic Vision 2030 and its executive programme, which aims to develop initiatives to

facilitate leadership in the establishment of small and medium-sized enterprises, in order to complement the system of financing services provided by the supporting bodies for small and medium-sized enterprises in the Kingdom of Bahrain.

Indicators: The share percentage of small and medium-sized enterprises in the GDP is 30% in the Year 2020, and this share has recorded a noticeable increase for all micro, small and medium-sized enterprises from 32.1% in the Year 2015 to 35.5% in the Year 2020.

### (1-2-1-3) Promote an enabling, fair and responsible environment for business and innovation

The general objectives of the Government Action Plan (2019-2022) emphasised investing in citizens and promoting comprehensive development, and an enabling environment that supports sustainable development, which is an affirmation of empowering citizens to raise their contributions in the development process for the integration of the steps towrd the implementation of the SDGs 2030.

In implementation of the directives of His Royal Highness Prince Salman bin Hamad Al Khalifa, Crown Prince and Prime Minister, and Chairman of the Economic Development Board (EDB), the "Small and medium-sized enterprises Development Board" was established in the Year 2017, to coordinate between the efforts of the Ministry of Industry, Trade and Tourism (MOICT), the EDB, the Labour Fund "Tamkeen", BDB, and Bahrain Chamber, in order to strengthen the establishment of emerging and small and medium-sized enterprises and their capabilities to improve the competitive side in the local, regional and global markets, in addition to increasing the contribution of small and medium-sized enterprises to the GDP, export, and levels of local labour employment (from recruitment processes in the private sector).

Within this framework, an integrated plan for the SMEs Development Board's duties and functions have been determined for the next five years, which is to follow up on initiatives and programmes through five strategic pivots: facilitating financing and access to markets, simplifying business establishment procedures, developing skills, and promoting innovations.

In this regard, the Labour Fund "Tamkeen" gave attention to a number of initiatives in the field of stimulating innovation and innovators in the commercial community and the entrepreneurship support system in the Kingdom of Bahrain, by providing appropriate solutions for challenges through innovation centres and building innovative business models.

In this field, the Fund introduced a number of qualitative programmes, such as the Innovative Business Support Programme, which supported institutions that provide prototypes for their products, and built a number of partnerships with local and international institutions such as Amazon Cloud Computing Company with focus on its Amazon Web Services (AWS) to build Cloud Innovation Centres (CICs) in local universities, in addition to the Global Entrepreneurship Conference held in April 2019; a major global event that hosted a large number of decision-makers and influencers in the global entrepreneurship system in line with Bahrain's aspirations in this regard.

Also, the Fund continued to encourage innovators through the Bahrain Award for Entrepreneurship, which was launched in the Year 2015 and includes 8 main categories such as sustainable institutions, institutions of international character and distinguished female entrepreneurs, in addition to the category of micro, small and medium-sized enterprises, and other initiatives.

Moreover, the Kingdom of Bahrain has sought to create an environment conducive to creativity and innovation in the field of entrepreneurship, while considering the principle of equal opportunities in the resources and services available to entrepreneurs. The participation of Bahraini women in various aspects of work and activities is considered one of the most important aspects of modern life, as they have proven their presence in the labour market by entering into several fields of work at the level of institutional work and entrepreneurship. Furthermore, numerous concerned parties from the public and private sectors and civil society institutions are keen to support economic participation in the field of entrepreneurship within their programmes and plans, with an approach that ensures equal opportunities for men and women, including: Bahrain Chamber, MOICT, and the United Nations Industrial Development Organisation (UNIDO).

It is worth noting that one of the most important and supportive initiatives to the participation in the field of entrepreneurship, in line with technological developments and

the advanced status of Bahrain's economy, is the "Sijili" virtual commercial registry initiative launched by MOICT and targeting business owners who practice business from multiple locations and do not have an address or a shop. Under this type of licence, the registry grants the legal capacity to business owners to conduct their businesses via a virtual address such as the website address or home address, without the need for a physical address, in addition to allowing the activity of business incubators and accelerators that aim to provide support services to entrepreneurs, institutions and start ups for a specific incubation period such as coworking spaces, guidance, counseling, marketing, commercial and financial planning, and public relations.

In support of the projects of women entrepreneurs, the Supreme Council for Women (SCW) is keen to have a complementary role to the authorities concerned with developing and completing the economic work system by providing and expanding diverse opportunities and options for Bahraini women to encourage them to engage in the field of entrepreneurs hip. Similarly, in implementation of the objectives of the strategic plan to achieve the principle of sustainability for women's work and their economic self-reliance, the SCW launched a set of programmes, projects and awards to support Bahraini women in the labour market and enhance their participation in economic activity, as SCW was keen to encourage relevant institutions to provide all services required by training programmes in the economic field, whether in terms of providing loans and concessional financing services, or in terms of providing integrated economic incubators that offer all administrative, advisory, training and technical services that women need to enter the field of entrepreneurship, in addition to launching initiatives and awards.

It should be noted that the statistics indicate that the percentage of active commercial registers owned by women amounted to 43% in the first half of the Year 2020. Among the most important initiatives that the SCW contributed to launching are:

1.Bahraini Women Development Centre (Riyadat): considered the first economic incubator in the region for women who wish to establish a private project or seek to develop their work and move from micro-projects to small or medium-sized enterprises, and it provides all administrative, training, advisory and promotional services.

2.Financial portfolios for women: concessional financing services that are provided with certain simple requirements and encouraging advantages to support the capital that women need to enter the field of entrepreneurship. In this regard, several options are available for women:

First Option: Her Royal Highness Princess Sabeeka bint Ibrahim Al Khalifa Financial Fund: Specialised in providing financing loans to micro-projects and seeks to transform the project into a small or medium-sized project. The Fund is valued at USD 5 million.

Second Option: Women Business Finance Scheme - Riyadat: Supports and improves small and medium-sized projects of women entrepreneurs, the value of which is USD 100 million.

3.Bahraini Female Entrepreneur Honour Seal: One of the initiatives to support young competencies in the field of entrepreneurship and to contribute to encouraging Bahraini women to innovate, excel and participate internationally to reaffirm these achievements and gains in various aspects related to providing an enabling environment for business.

For example, according to the "Doing Business Report 2020" issued by the World Bank Group, the Kingdom of Bahrain was on the list of the ten most improved countries in the world, with the highest number of reforms in 9 out of 10 sub-indicators, thus improving its overall ranking by 19 ranks, making it the 43<sup>rd</sup> in the world out of 190 countries.

According to the "Startup Genome Report 2020", Bahrain ranked 5<sup>th</sup> globally in terms of the ecosystem for startups in the activation stage, and ranked first in the Arab world in the freedom of investment and first among Arab countries in freedom of trade according to the "Economic Freedom Report 2021" issued by the Heritage Foundation.

Also, the efforts of the Small and Medium-sized Enterprises (SMEs) Development Board came to support the establishment of these institutions and build their capabilities to improve the competitive aspect in the local, regional and global markets, in addition to increasing the contribution of SMEs in the GDP to reach 40%, raising the percentage of contribution to exports to reach 20%, raising job opportunities for local workers to reach 43,000 jobs. The SMEs Development Board has launched 17 initiatives classified according to five strategic pivots: facilitating financing, and access to markets, promoting innovation, developing skills, and simplifying the business environment. In addition, five more initiatives were developed, according to the directives of the Ministerial Committee for Financial and

Economic Affairs and Financial Balance, which are related to facilitating obstacles to the operating capital of SMEs, bringing the total of the current initiatives to 21 initiatives.

Furthermore, the Board's initiatives contributed to raising the percentage of SMEs contribution to the GDP from 36% in the Year 2017 to 37% by the end of the Year 2019, and the percentage of SMEs contribution to exports increased from 15.5% in the Year 2017 to 19.1% at the end of the Year 2019. According to data provided by the Information and e.Government Authority (IGA), the employment sector had approximately 39.7 thousand Bahraini employees in the Year 2019, compared to 34.7 thousand Bahraini employees in the Year 2017.

The Board is considered a successful model of partnership between the public and private sectors and the fruit of unified efforts and joint endeavours, as more than 60% of the total initiatives have been accomplished, and despite how recent the launch of the initiatives was, they have made a significant impact in the entrepreneurship and innovation system, and established a qualitative shift in the SMEs sector, which would have a long-term economic impact in accordance with international best practices. The most important of these initiatives are as follows:

1.Launching of the "Export Bahrain" centre in November 2018 to encourage and promote national exports by providing 11 export solutions, as the value of soft exports amounted to USD 74.8 million, and the percentage of exporters, who expanded their access into the markets was 33%, while the percentage of new exporters was 15% of the total beneficiaries, according to the data received from «Bahrain Exports».

2.Launching of the "Made in Bahrain" brand in order to achieve leadership for the national product, promote the Bahraini industry in the local markets, and encourage national exports, as more than 228 Bahraini factories have obtained this brand since its launch in January 2020.

3.Launching of the first phase of the electronic system for the registration of SMEs, which aims to classify enterprises according to size, and promote the growth of SMEs by enabling them to benefit from programmes and initiatives designated for them, such as having leverage in government tenders and auctions. Applications for classification, which amounted to 1978 million applications, were received and passed through the system until the first quarter of the Year 2021.

4.The government procurement decision to implement the esteemed Cabinet's resolution on granting leverage to SMEs at a rate of 10% in government service facilities' tenders and auctions within government agencies' facilities. As a result, the Year 2020 witnessed the awarding of 146 government tenders with a value of BD 55 million to SMEs that obtained classification certificates from MOICT, making up 7% of the total value of awards for the same period, as 59 SMEs benefited from these tenders, while the number of bids received from these SMEs reached 539.

5.Launching the activity of business incubators and accelerators to encourage the private sector to invest in providing incubation services and accelerating business supportive of entrepreneurship, developing emerging SMEs, and overcoming the challenges they face in their early stages, as 24 business incubators and accelerators have been licenced in various disciplines, including financial technology, the Internet of Things, media, medicine and technology (Fintech), from which more than 700 incubated institutions and startups benefited until the first quarter of 2021. Also, the MOICT took the initiative to issue a decision to increase the incubation period to 3 basic years, in order to support emerging institutions incubated after the Covid-19 pandemic.

The SMEs Development Board headed by MOICT continues to work on several initiatives within the Board's strategy, the most important of which are:

1.Launching an advisory services platform for SMEs, which aims to facilitate access to information through one platform in a timely manner and with the greatest flexibility, to benefit from solutions, initiatives and programmes.

2.Launching the Technology Transfer Office in joint cooperation between MOICT, the University of Bahrain (UOB) and the Commercial Law Development Programme (CLDP) of the US Department of Commerce, funded by the Middle East Partnership Initiative (MEPI) of the US Department of State, and that is by activating the intellectual property policy to secure protection for the intellectual property of the inventions of the academic staff and students alike, and apply the process of negotiating over licencing requirements, which will contribute to the marketing and commercial exploitation of innovations and products and the transfer of expertise from American innovation centres.

All government endeavours continue to enhance the position of the Kingdom of Bahrain as a centre for emerging projects, through the continuous development of regulatory

legislations, initiatives and development programmes, which shall provide a stimulating investment environment for entrepreneurship and institutions, due to the importance of the prominent role played by this sector in achieving Bahrain's Economic Vision 2030 through the transition from an economy based on oil wealth to a productive economy capable of competing globally, with sustainability, justice and competitiveness as its basic principles, to pave the way for a partnership between the public and private sectors (PPP), to create a stimulating climate for leadership and innovation.

Indicator: \*The time taken to register a facility depends on its type (whether it is an individual establishment or a company) and whether the investors are local or foreign. \*Individual establishments and enterprises wholly owned by Bahraini, Gulf or US citizens can be registered within minutes, but may take up to a maximum of 3 working days depending on the information provided. \*Companies with foreign investors except (GCC countries and Americans) may take up to 10 working days.

#### (1-2-2) Sustainable prosperity for all

### (1-2-2-1) Diversify the urban economy and promote cultural and creative industries

The Kingdom of Bahrain is abundant in numerous archaeological and cultural sites that constitute a heritage dating back to 5000 years, and the National Detail Land Use Plan has been concerned with the preservation, protection and management of this heritage.

On its part, the Bahrain Authority for Culture and Antiquities (BACA) has commenced the adoption of a number of initiatives and projects in the same direction, among which was the preparation of an integrated project documenting the pearling industry from the social, economic, environmental and cultural aspects known as the "Pearling Path" project, which was included on the UNESCO World Heritage List in the Year 2012.

The "Pearling Path" represents the path that Bahraini pearls take from the moment they are extracted from the seabed until it reaches international markets. The "Pearling Path" extends more than 3 kms, starting from pearling sites "hayrat" which were declared a natural reserve

in the Year 2017 as the areas known for the spread of pearl oysters, most notably the sites of "Shutayah" up to Bu Maher Fort towards the homes of divers and shipmasters, to the homes of the "pearl traders", then to the Pearl Museum to portray the ancient Bahraini life and the ancient heritage of the Kingdom. By their nature, these projects create many job opportunities in the field of Culture, and it is worth noting that there are other archaeological sites included on the UNESCO World Heritage List, such as Bahrain Fort (2005) and the Dilmun Burial Mounds (2019).

Indicators: \* According to the IGA data, the ratio of employment in the manufacturing industry to the total employment in the Kingdom was about 11.75% in the Year 2017.

## (1-2-2-2) Develop technical and entrepreneurial skills to thrive in a modern urban economy

The development and advancement of human resources is more important than the expansion of physical capital, as it will lead to self-reliance, which is a prerequisite and a necessity for any internal development strategy. From Bahrain's belief that a country that is unable to develop and improve its human resources, in terms of skills and knowledge and using those skills and knowledge effectively, will not be able to develop or improve in any other aspect, the High Council for Vocational Training in Bahrain established the Vocational Training Centre in the Year 1981 to develop the administrative and technical capabilities of local workers by offering various training programmes for different skills and professions, including banking services. In the Year 1991, this centre was transformed into Bahrain Training Institute (BTI), which was under the supervision of MLSD at the time, and with the launch of Bahrain Economic Vision 2030 in the Year 2008, BTI worked to provide high-quality training opportunities in the industrial, construction and economic sectors, information systems, and service industries, which qualified it for institutional inclusion and the inclusion of its qualifications within the National Qualifications Framework.

In addition, companies and organisations with more than 200 employees are required to establish training programmes for their workers and employees, while smaller businesses contribute a percentage of their total workforce wages (2.5% for local workers, 4% for expats) to cover training costs provided by the government through BTI.

At the same time, MLSD is following a scientific methodology to develop the vocational training system through the National Labour Market Observatory in accordance with a strategy that aims to reform the labour market and make national cadres its optimal choice through education and training. Also, in accordance with Law No. (17) of the Year 2007 on vocational training, Law No. (36) of the Year 2012 regarding work in the private sector, Decree-Law No. (25) of the Year 1998 regarding private educational and training institutions, and finally the draft law on private training institutions, which was referred by the Cabinet to the Supreme Council for the Development of Education and Training..

On the other hand, the establishment of the Labour Fund "Tamkeen" in the Year 2006 was an essential step on the same path to provide support to both individuals and institutions who wish to develop and enhance their individual initiatives and skills, establish their own projects, increase and improve their productivity and raise their living standards, thus achieving one of the most important goals of the Kingdom's futuristic vision 2030, which is related to developing the private sector and making it a key engine of economic growth, as the Fund directs its various training and funding programmes to many segments of society. Also, it provides advisory services to individuals and institutions to support them through their various stages of development, starting with feasibility studies, marketing for institutions, increasing effectiveness and engaging in global markets, to participating in specialised exhibitions and others.

Over the past years, the Labour Fund "Tamkeen" has succeeded in rehabilitating and training more than 125,000 Bahraini citizens of both genders through various initiatives and programmes that serve them, of which more than 17,000 citizens enrolled in and benefited from professional certification programmes, in addition to supporting more than 45,000 companies and enterprises, including 10,000 enterprises that were served through a programme concerned with developing their operational infrastructure, while the share of emerging enterprises reached about 60%.

Furthermore, the Fund gave special attention to Bahraini women, who constitute 59.7% of the total number of clients supported by Tamkeen through microfinance programmes. Considering the changes witnessed by the labour market in recent years, with the increasing challenges posed by the decline in oil prices, and the need for a trained and efficient workforce commensurate with the requirements of the labour markets, Tamkeen started implementing the strategy (2018-2020), which is a continuation of its previous strategy of

developing a partnership with customers, enhancing the quality of services and achieving the best results, in addition to proceeding with its development endeavours by finding new focal points represented in diversifying its local customer base, finding specialised solutions for various customer segments of individuals and enterprises in all their development stages, accelerating the achievement of innovation and efficiency, and improving productivity that can boost growth in Bahraini enterprises to achieve higher returns and expand their businesses locally and internationally, ensuring their sustainability. In addition, Tamkeen is keen to conduct consultative sessions, research, and market studies on a regular basis to identify the needs and requirements of the labour market and find the most appropriate solutions that ensure the achievement of its goals and plans aimed at promoting economic growth and strengthening the position of the Kingdom of Bahrain on the map of global entrepreneurship.

Also, the Fund focused on entrepreneurs who own SMEs, which represent about 99% of Bahraini companies and 70% of the workforce in the Kingdom of Bahrain, thus maintaining Bahrain's International ranking on the Global Entrepreneurship Index issued by the Global Entrepreneurship and Development Institute (GEDI), where it ranked 38th globally and 3<sup>rd</sup> in the Arab world in the GEDI Report 2019.

For its part, the Ministry of Youth and Sports Affairs (MYS) inaugurated the "FAB LAB" laboratory, an extension of the «International FAB LAB», and the first laboratory of its kind in the Kingdom of Bahrain to help inventors, entrepreneurs and students turn their ideas into reality, and discuss and solve manufacturing problems. The "FAB LAB" was inaugurated to achieve higher levels of economic productivity through diversification and upgrade the level of technology and innovation.

Moreover, in cooperation with the United Nations Industrial Development Organisation (UNIDO), the MYS launched the "Best Homemade Product" initiative for productive families affiliated with youth centres to be sold in the local market and exported abroad when possible. And starting from the Year 2010 the MYS has been implementing the "Youth City 2030" project during summer holidays, supported by "Tamkeen" with the aim of upgrading, rehabilitating and training Bahraini youth through a set of programmes aimed at building and developing capacities and capabilities that will qualify them to enter the labour market. The number of training programmes reached 94 programmes in the Year 2017, from which 4,875 young men and women benefited.

Also, to keep pace with the changes and the global lead in the transition to sustainable energy, the specialised labour markets witnessed a demand for specialised professional jobs in the fields of renewable energy and energy efficiency. Thus, the Sustainable Energy Authority (SEA) was keen, within the strategies and plans it implements, to offer training and qualification programmes and professional workshops in cooperation with major leading international training institutions in the fields of energy, as well as ministries and related and specialised bodies. And in cooperation with the Electricity and Water Authority(EWA), the SEA launched a free qualification and training programme for contractors, consultants and solar energy systems installers, which was launched in January 2018, and 6 batches have been trained since the launch of the programme with a total of 314, who enrolled, while 264 of them were qualified and granted certificates of accreditation to provide advisory services and solar energy systems installation and maintenance services.

Moreover, the SEA offered workshops in the fields of energy efficiency, including a workshop on Energy Efficiency Audit for buildings, and other professional workshops, such as a workshop for banking institutions and banks on preparing sustainable financial packages in support of renewable energy projects, in addition to a number of field visits and lectures provided by the SEA to schools and universities and cooperation efforts with academic institutions to prepare and develop educational curricula that include renewable energy and energy efficiency sciences. Also, the Authority participates in national, regional and global events, conferences and symposiums, and through its participation in these important platforms, it contributes to increasing public awareness and shedding light on the initiatives and contents of the Kingdom of Bahrain's plans and strategies in relation to sustainable energy.

These training programmes, workshops and participations are highly significant in creation of new job opportunities and encouraging professional career opportunities in the fields of renewable energy and energy efficiency.

Indicator: \* The annual number of vocational and technical education graduates: 1,552 in the Year 2018/2019, 1,634 in the Year 2019/2020.

#### (1-2-2-3) Develop urban-rural linkages to maximise productivity

Economic issues, inequality and environmental challenges are national issues, in which there is no discrimination between rural and urban areas based on the mutual dependence between them at all economic, social and environmental levels. Bahrain has witnessed a decline in the population of villages and their disappearance from modern census documents due to the classification of the urban population census of an urban community being a population of 2,500 people or more. Since the number of urban communities located in agricultural or fishing areas has exceeded this specific number, these communities were considered urban, in addition to the predominance of urban morphology over their built-up areas, although the practitioners of agriculture and fishing did not disappear from their population-based landscape.

Against this background, the National Strategic Development Plan focused on planning land uses for economic development in both urban and rural areas, and developing their infrastructure and social services, while preserving heritage and protecting the environment. Within the framework of this plan, the Government has adopted a broad programme of "Towns and Villages Development Project" that aims at improving the quality of life in general to ensure sustainable development while linking cities, towns and villages to each other. This programme has succeeded in improving more than 110 villages and developing them in an integrated manner over a number of stages in terms of infrastructure services such as water, sanitation and electricity, in addition to building a number of housing units in the expansions of villages, through which it was possible to acquire land, allocate sites to build schools, health centres, social centres, employment centres, and various recreational areas. Also, the Kingdom's government has worked on constructing, extending and expanding the new roads to strengthen links between traditional villages and major urban complexes in Manama City (the capital) and Muharraq City in order to maximise productivity.

Moreover, the National Strategic Land Use Plan encourages the various types of existing economic and urban growth, complementary relationships between rural and urban areas, protection and renewal of natural environments in the Kingdom, and establishing a deliberate balance between development and environmental reserves.

In this context, suburbs have been assigned for private use in all planning regions (business,

industrial and agricultural areas), and the processes stimulating growth have been adapted to suit such trends. However, the limited plannable lands within villages and the lack of available lands around these urban communities constitutes a major challenge, and the increase in demand for facilities and services in light of limited resources remains a heavy burden.

It should be noted that the international standard classification of urban and rural areas does not apply accurately to the Kingdom of Bahrain, as the urban population and the rural/village population often overlap without significant differences, and it is not possible to clearly separate these two categories. Nonetheless, the areas defined as rural in the Kingdom of Bahrain are areas where there are "rural practices" and not purely rural areas according to international classifications.

Indicator: \*The Kingdom of Bahrain has a national urban policy and regional development plans that respond to population dynamics, ensure balanced regional development, and seek to increase the local fiscal space.

### (1-3) Environmentally Sustainable and Resilient Development

## (1-3-1) Resilience, mitigation, and adaptation of cities and human settlements

#### (1-3-1-1) Minimise urban sprawl and loss of biodiversity

The Kingdom of Bahrain faces a set of natural and human challenges created by its natural geographical reality; its desert island nature on one hand, and its population's high growth rates with a high general population density; the highest among Arab countries on the other hand. Bahrain has a small geographical area, scarce water resources while its environment has drained it from agricultural resources, and climate change is threatening to lead it to considerable dangers, its ecosystem is at risk of losing its biological diversity, and it suffers from a severe shortage of building land due to human urban expansion.

All these factors and influences have caused the limited land resource to be under intense competition between the different land uses; from housing to economic and social activities. In such circumstances, the horizontal urban sprawl represents a waste in land uses and an increase in the cost of infrastructure services. Hence, the Kingdom resorted to increasing urban areas through vertical construction with remarkable success, which initially appeared as a difficult challenge that required a change in social and cultural attitudes towards accepting multiple-storey residences and families in place of individual housing for families (houses).

At the same time, the Kingdom utilised sea filling and reclamation through well-formulated plans as means to provide land areas for urban expansion, but this solution was not free from ecological effects on the marine environment.

Therefore, the Kingdom of Bahrain has taken serious steps within the framework of an integrated strategy that includes a set of policies for organisational intervention and advance planning to deal with this issue in its various spatial and environmental dimensions, whose features are embodied in improving the ways of using scarce resources by managing rapid urban growth within the framework of the second strategic structural plan.

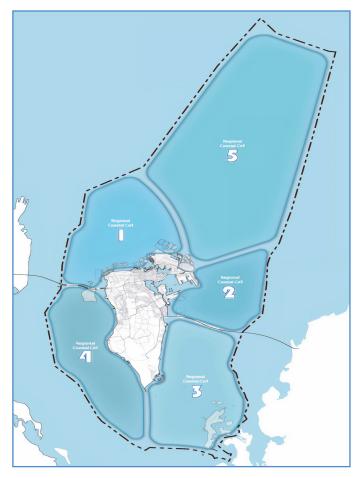
Furthermore, the Kingdom has revised urban planning and development laws and legislations in order to improve urban land management and address the problem of urban sprawl, in addition to applying modern planning techniques to enhance the achievement of sustainability in plans while providing tools, upgrading the technical skills of those implementing urban plans and designs, and using innovative solutions in urban planning and design in projects to revive and redevelop old areas.

On the biodiversity side, despite its small area, the Kingdom of Bahrain incubates countless important ecosystems such as natural springs, palm groves, reed swamps, deserts, etc. Due to the growing demand for land and the increasing human pressures on it, these habitats are subject to degradation. On one hand, the decrease in the level of groundwater and the deterioration of its quality led to the transformation of some agricultural lands into residential areas, and the urban growth near the coasts has become a source of threat to important shallow and wetlands such as the mangroves (mangroves: the black mangrove plant that grows densely at Ras Sanad area in Tubli Bay in the Capital Governorate), mudflats, seagrass beds, and pearl oysters beds.

The issues of preserving the marine environment and biodiversity came as core issues in Bahrain's Economic Vision 2030, of which sustainability constituted one of its three principles. As the marine and coastal environment of the Kingdom of Bahrain is characterised by rich biodiversity, including at least 1,455 species of living organisms from different taxonomic groups and vital habitats of environmental, economic, social, cultural and heritage importance at the national, regional and international levels, the most important of which are the so-called blue carbon environments (coral reefs environment, seagrass beds, mudflats, mangroves environment), in addition to pearl oyster beds, rocky and sandy beaches, and salty marshes.

Moreover, the national plan stimulates various types of economic and urban growth based on the protection and renewal of the natural environments in the Kingdom and establishes a well thought balance between development and environmental reserves. Thus, the Kingdom's government has worked to preserve this biological biodiversity by carefully identifying the areas of natural reserves, whether at Hawar Islands and their marine surroundings, the traditional pearling sites, or the mangrove areas in Tubli Bay, which have an area of about 437 hectares (4.37 kms²). Accordingly, the protected marine areas increased to 1,706.81 km² in the Year 2020, and the area of terrestrial reserves is 0.7% of the total land area, while the area of marine reserves is 22.8% of the total area of the territorial waters of the Kingdom of Bahrain (Figure 2), which exceeds the "Aichi Biodiversity Targets" that aim to conserve at least 10% of coastal and marine areas by the Year 2020.

Figure 2: Geographical distribution of protected marine areas in Bahrain (5 Reserves)



Source: Urban Planning and Development Authority, National Strategic Structure Plan: Bahrain 2030 National Planning Development Strategy:National Plan 2008 The Kingdom's government has taken a number of major steps in adopting the ecosystem approach to manage coastal ecosystems in order to maintain their sustainability and services, maximise economic and social returns, and promote human well-being.

In cooperation with the Bahrain Petroleum Company "Bapco", a mangrove cultivation programme has been implemented starting from the Year 2013, and there is an environmental impact assessment for projects, which did not only assess individual projects, but the programmes expanded to include conducting a strategic environmental impact assessment on all projects to identify, avoid or prevent the cumulative effects of development projects. Finally, there is the protection of endangered species and their habitats (red list index), where the status of a selected group of 23 endangered species in the Kingdom of Bahrain was assessed, (based on Criteria of the International Union for Conservation of Nature (IUCN), to determine the level of extinction risk they face.

It should be noted that the other islands in the Kingdom of Bahrain, which are essentially uninhabited, have maintained a rich, abundant and balanced biodiversity. The updated Biodiversity Strategy and the National Action Plan of the Kingdom of Bahrain (2016-2021) includes administrative, legislative and regulatory measures to confront the threats faced by biodiversity in the environment in general, and the marine environment in particular, the most important of which are dredging and backfilling, the emergence of invasive alien species, and the regulation of marine fishery.

Hence, determining future urban growth areas is critical to the sustainable development of Bahrain's islands and the preservation of natural resources.

Indicators: \*The ratio of the land consumption rate to the population growth rate between the Years 2001 and 2010 was about 0.0761 and increased to 1.4317 between the Years 2010 and 2018. The average land consumption per capita was 118.12 in the Year 2010 and increased to 130.91 in the Year 2018. \*The percentage of lands classified as nature reserves on the islands is 0.69%, and the percentage of marine areas classified as nature reserves is 22.8% of the total area of Bahraini territorial waters.

### (1-3-1-2) Implement climate change mitigation and adaptation actions

According to the Second National Communication (SNC) under the United Nations Framework Convention on Climate Change (UNFCCC) in the Year 2012, climate change threatens the Kingdom of Bahrain with the inundation of about 11% of its land along the areas of its coastal cities and its costly vital facilities. The impact of sea-level rise will not stop there but will also lead to additional pressures on groundwater resources due to seawater intrusion into aquifers.

At the same time, climate change poses a potential public health threat due to the frequency and intensity of dust waves associated with droughts, increased exposure to extreme temperatures, and the possibility of change in disease vectors dynamics.

Additionally, climate change leads to the deterioration of water and food security in the Kingdom, with its expected effects on biodiversity, fish stock, date farms, and others, as well as its effects on coral reefs, mangroves, and migratory birds, especially since there are 16 marine habitats of which 6 are considered priority systems for any subsequent actions related to adaptation to climate change, which are algae areas, coral reefs, oysters, seagrass, mangroves, mudflats areas, salt marshes and coastal dunes.

Greenhouse gas emissions in the Kingdom are attributed to the increasing consumption of fossil fuels in oil and gas exploration, electricity and water production, and transport and industrial production activities, and estimates indicate a rapid and significant increase in these gas emissions from the energy sector by the Year 2030.

At the same time, the air quality in the Kingdom is affected by the increase in the intensity and frequency of sand and dust storms that have increased regionally over the past two decades, as the drought that the Syrian and Iraqi desert has been exposed to recently wiped, or almost destroyed its vegetation cover, which led to the disintegration and disperse of its soil, by winds and the excessive dust and sand storms moving to the Arabian Gulf region.

Therefore, addressing this problem requires protecting the vegetation cover there by expanding the establishment of transboundary nature reserves in the northern parts of West Asia.

At the local level in Bahrain, the increase in the development activities of construction projects, number of vehicles, and industrial development have raised the concentration of fine particles in the ambient air. In order to mitigate the phenomenon of dust and air pollution in urban areas, in addition to providing various facilities throughout the country, the establishment of gardens, parks, beaches, waterfronts, walking lanes, traditional squares, afforestation and embellishment of streets in various regions of the Kingdom was expanded, taking into account the requirements of all categories of children, women, people with disabilities and others. Furthermore, old Bahrain springs and their surroundings were rehabilitated and converted into parks that are available to everyone, which not only led to human well-being, but also to the preservation of Bahrain's heritage and environment at the same time.

On its part, the Kingdom of Bahrain dealt with climate change early by taking various procedures and measures, including issuing a resolution for Environmental Assessment of Projects in the Year 1998, and another resolution for Environmental Standards and its amendments in the Year 1999, which had the greatest impact on reducing greenhouse gas emissions from old industrial activities, as well as stimulating the public and private sectors to invest in green technologies that are environmentally friendly in their new projects. In addition, Resolution No.(8) for the Year 2002 regarding standards for pollutants and substances emitted from vehicles or their exhausts and the inspection on them was issued in the same direction, which led to the reduction of emissions from vehicles. Also, the Kingdom has issued a number of national statements on climate change which defined the local conditions of the country in a comprehensive way and listed the sources of local emissions and their volume. On this basis, the Joint National Committee on Climate Change was set up to formulate national policies for climate change, and to develop a programme to mitigate the effects of those climate changes, focusing on reducing greenhouse gas emissions by encouraging further application of national initiatives of government institutions and stimulating the private sector, in addition to adopting the activation of the mitigation goals of the National Economic Vision 2030.

Among the most important measures and procedures taken by the Kingdom to mitigate climate change and adapt to it are:

1.Adopting national plans and strategies for the environment, renewable energy and energy efficiency, along with national goals to be achieved by all ministries, government agencies and the private sector.

2. Working on the establishment of a pilot plant for the generation of electric power using a mix of solar and wind energy, with a production capacity of up to 5 megawatts, by the Electricity and Water Authority (EWA).

3.Preparing the Green Buildings Guide, which includes several mandatory and optional specifications and standards to be applied based on a time schedule that includes mandatory and optional classifications for new buildings, standards for new building requests and restoration works for existing buildings. The application of these specifications contributes to reducing energy and water consumption in the building and will contribute to raising the value of the buildings applying these specifications.

4. Signing of an agreement to install distributation solar energy systems with a total production capacity of 5 megawatts of solar energy in the Year 2012 in Awali Town, Bapco refinery and the University of Bahrain (UoB) - Sakhir branch.

5.Signing of a joint cooperation agreement between the Kingdom of Bahrain and the UNDP to establish a centre for renewable energy and energy efficiency. The "Sustainable Energy Unit" was established in November 2014, which was transformed into the "Sustainable Energy Centre" in March 2019 by a royal decree, then to the current Sustainable Energy Authority (SEA) by a royal decree in October 2019, concerned with strategies and goals related to sustainable energy and is considered an important complement to the Kingdom's efforts in fulfilling international, regional and global commitments to limit climate change and mitigate its effects.

6.MOICT issued Ministerial Resolution No. 15 of the Year 2021 regarding the adoption of the Gulf Electric Vehicles Technical Regulation, which came into effect at customs outlets and local markets for commercial purpose on 28th July 2021. The control programme issued by the aforementioned ministerial decision aims to strengthen control over electric car products, electric chargers and electric batteries that form the basic system for electric vehicles and are the main component of smart cities. This programme is considered one of the most important control programmes that will help the Kingdom of Bahrain to reduce carbon emissions significantly and quickly compared to other products, in addition to accelerating the reduction in climate change rates, which in turn contributes to the preservation of resources and the environment.

As for the quality of life, Bahrain has witnessed a quantum leap in air quality monitoring to keep pace with the developmental changes that have occurred in the industry, transport, road infrastructure, and others, by increasing the number of pollutant measurement stations. Additionally, the Kingdom is currently monitoring air quality in various governorates, and monitoring and following up on pollution from fixed sources of various industrial projects, with the commitment of all concerned facilities to take the necessary measurements for the most important pollutants emitted from their chimneys by neutral laboratories and under the supervision of the Supreme Council for Environment (SCE), with periodic reports showing the results of those measurements to be provided to the Council.

At the same time, the SCE monitors and follows up on pollution from mobile sources, as the vehicle exhaust monitoring programme in the Kingdom aims to verify the compliance of the concentration of gaseous pollutants emitted by vehicle exhausts with relevant environmental requirements and standards.

Also, the import of vehicles in the Kingdom is controlled to ensure that they contain the catalytic converter or any other technology that reduces the level of pollutants emitted from their exhausts.

Governmental and non-governmental institutions are involved and informed of plans and reports on air quality, data is shared with them, and cooperation is undertaken to achieve

best practices that serve joint environmental work, and in a manner that achieves the principle of sustainable development. Among the best of such practices are:

- 1.Developing a national strategy for phasing out Ozone-depleting substances (HCFCs) by the SCE in cooperation with the United Nations Environment Programme (UNEP) and the Bahrain Society of Engineers (BSE).
- 2.The commitment of the oil sector companies to implement programmes and projects to protect the environment in accordance with local and international environmental standards, in recognition of their importance, as these projects have contributed to improving the efficiency of their performance and reducing their emissions, the most important of which are:
  - a) Bahrain Petroleum Company (Bapco) reduced the Company's emissions of air pollutants, especially Sulfur Oxides, to improve Bahrain's environment at a cost of USD 155 million, which was accomplished in December 2008.
  - b) Gulf Petrochemical Industries Company (GPIC) has taken several steps to preserve the environment, reduce emissions and rationalise the consumption of resources through the installation of the urea plant, which contributed to improving the surrounding environment and the establishment of a Carbon Dioxide recycling plant, which started to convert its output into useful economic products.
  - c) Bahrain National Gas Company (BANAGAS) modified the combustion system in one of the gas turbines, which contributed to reducing Nitrogen Oxide levels by more than 40%.
  - d) Replacing the traditional control devices in some electric power plants with modern technology digital control devices, and replacing the stoves with more efficient ones, in order to reduce the percentage of pollutant gas emissions.

3. Developing environmental legislations and standards related to air pollutants with the aim of improving air quality, in partnership with the Gulf Cooperation Council (GCC) countries, to issue an air quality index and emphasise them at the local and global levels.

4.Conducting research and experimental practical studies on clean energy (solar energy and wind energy) in the brick industry in order to reduce thermal energy consumption and emissions resulting from that consumption.

Indicators: \* The annual average of fine particles (PM2.5) in cities/towns amounted to 45.7 (ug m<sup>3</sup>) in the Year 2018 and decreased to 40.7 (ug m<sup>3</sup>) in the Year 2019. \*The death rate due to household air pollution does not apply to the Kingdom of Bahrain, due to the dependence of 99.9% of families on clean fuel for cooking. \*The death rate due to ambient air pollution was 42.84 people per 100,000 people in the Year 2015 and decreased to 38.75 people per 100,000 people by the Year 2019. The four governorates adopt and implement local strategies to reduce disaster risk in line with the national strategy in this regard

## (1-3-1-3) Develop systems to reduce the impact of natural and human-made disasters

The measures adopted by the Kingdom to mitigate the effects of natural and artificial disasters have evolved into comprehensive plans for prevention, planning and advance preparation measures, procedures for dealing with emergencies at their occurrence, and the elimination of their effects, in addition to procedures for the phase of recovery and returning to normalcy.

On one hand, meteorology has developed greatly with the continuous modernisation and development of devices, systems and means of communication for meteorological operations to keep up with modern changes and standards, achieve public safety, reduce the effects of natural disasters on lives and property, and contribute to sustainable development. Additionally, the Kingdom currently covers three automatic stations for climate monitoring, and two advanced radars to monitor thunderstorms, measure wind

speed and atmospheric temperature, all of which have been linked to the unified network of radars for the GCC countries, as well as a radar to serve flight operations during take-off and landing to ensure their safety.

On the other hand, due to the recent increase in seismic risks that the region has witnessed, Bahrain has established a modern and advanced seismograph monitoring station to monitor earthquakes (in the Qila'a Al Amr area in Sakhir in the Southern Governorate) that has been globally classified as fully operational. This station has been linked to the national seismic monitoring network in the United Arab Emirates, contributing to obtaining the information required to monitor earthquakes according to a sophisticated technical system that operates automatically. Also, this station contributes to monitoring all earthquakes around the world and will enable the Meteorological Department to provide support and assistance to the National Committee for Disaster Management, especially in the meticulous analysis processes and forecasting. Within the framework of the country's strategy to reduce disasters, seismic sensors have been installed in high buildings, which will help determine building design standards and infrastructure projects, and a station has been established to monitor land and sea nuclear radiation and leaks inside and outside Bahrain's borders.

Furthermore, a strategy has been developed to confront and recover from disasters, which includes plans with procedures that advances the methods of dealing with disasters and returning to normalcy. A department was established in the Ministry of the Interior (MOI); the Executive Office of the National Committee for Disaster Management (NCDM) as a coordinator at the national level to implement this strategy. In its turn, the MOI formed the Civil Defence Council and the NCDM, to take measures and procedures related to addressing emergency situations, and to enhance cooperation with brotherly and friendly countries in taking measures to alleviate human suffering by preventing the occurrence of natural and human-caused disasters, and taking the necessary measures to mitigate their effects if they occur, which is a strategy consistent with the (Sendai Framework for Disaster Risk Reduction 2030) in all its aspects and procedures.

In addition, the NCDM of the Ministry of the Interior verifies the readiness of the concerned authorities to confront any emergencies such as fires and chemical hazards, including industrial accidents, hazardous materials, road transport accidents, radiation, nuclear pollution, etc., and planning in advance to prevent their occurrence, while raising the preparedness and readiness to confront them.

The national matrix for facing risks is periodically updated in accordance with the Sendai Framework, through workshops that include all partners in the government agencies, private sector, civil and academic societies, in which the risks that the country may be exposed to, their effects, the appropriate measures to prevent them are identified, and plans are developed to confront them and ensure the readiness of the concerned institutions to deal with them.

The national emergency strategy is based on three pillars; developing a culture of safety and awareness of risks and prevention through knowledge, innovation and education at all levels, developing and strengthening organisations, mechanisms, and building capacities at all levels to ensure the successful implementation of safety culture, risk awareness, risk management strategies, and crisis management to ensure speed and success in reaction, response and recovery when any major crisis occurs that could affect the health, well-being and wealth of the nation.

Indicator: \* The Kingdom of Bahrain has a system for monitoring and forecasting multiple hazards, and the four governorates adopt and implement local strategies to reduce disaster risks and implement them in line with the national strategy in this regard.

# (1-3-1-4) Build urban resilience through quality infrastructure and good spatial planning

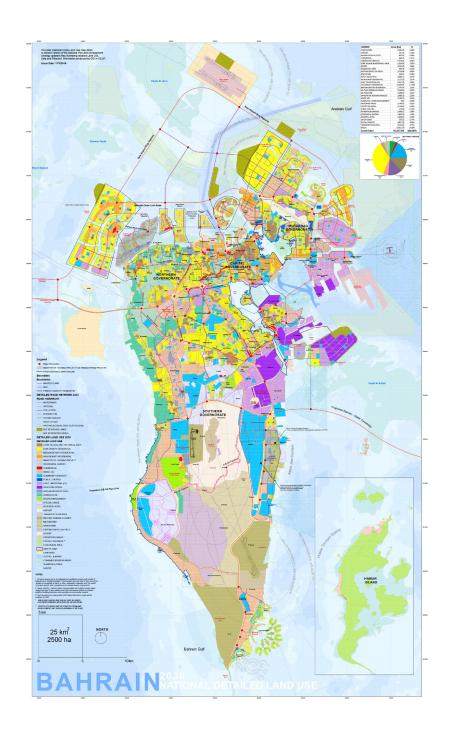
The Government Action Plan (2019-2022) emphasised the provision of an infrastructure that is supportive of sustainable development. The Kingdom is known for its history of spatial planning dating back to 1968, when a physical planning unit was established to undertake the task of issuing urban plans, and which, through the stages of practice

development, turned into the Urban Planning and Development Authority (UPDA), which was able to issue the National Strategic Structure Plan 2030, promulgated by Decree No. (24) of the Year 2008, then approved the second version of this plan with Decree No. (36) of the Year 2016 (Figure: 3), whose detailed plans set out the prospects for development in the Kingdom of Bahrain in general, and sustainable urban development in particular, as it identified the features of urban growth in all the areas of the country through ten main strategies aimed at creating integrated urban communities that contribute to achieving balanced and sustainable urban development.

In 2016, the Bahrain French Town Planning Initiative (BFTPI) was launched with the aim of providing technical support to the UPDI to develop the national land strategy, in accordance with the framework of the National Strategic Structure Plan of the Kingdom of Bahrain and the detailed plans of the four governorates, while raising the levels of development in the field of land management and urban planning strategies in The Kingdom of Bahrain and improving its ability to realise its priorities and develop mechanisms that contribute to the completion of work more efficiently.

The initiative has developed plans to improve urban planning and infrastructure, expand various Bahraini urban areas, set up a national development strategy according to the necessary needs, and prepare master urban development plans for urban planning through the preparation of five guidelines for urbanisation, namely: guidelines for green areas, guidelines for archaeological areas, guidelines for waterfronts, guidelines for main land proportions, and guidelines for major projects.

**Figure 3: National Strategic Structural Land Use Plan 2030** 



Source: Urban Planning and Development Authority, National Strategic Structure Plan: Bahrain 2030 National Planning Development Strategy:National Plan 2008 In addition, the principles of sustainable planning and management, which enhance the interconnection of green spaces, variation in transport systems forms, and the diversity of projects uses to establish sustainable urban communities, constituted a significant tributary to the protection of the historical, cultural and environmental heritage in the Kingdom.

Some urban development projects, including Khalifa Town, which was established along the southeastern coast of the Kingdom of Bahrain, are based on the idea of development that aims to specify places for pedestrian crossing and traffic, and on sustainable planning for the construction of residential and multi-purpose buildings within walking distance of public transport and pedestrian facilities to enhance transport options and reduce the number of vehicle trips.

In the same aspect, Bahrain developed an integrated model for land use and transport planning, due to the direct impact of these proposed uses on transport, in pursuit of optimal land use, in addition to the basic infrastructure that supports the different land uses, with the adoption of this model to assess the impact of urban projects, and the capacity and feasibility of the new basic infrastructure.

Given that sustainability is an integral part of the strategic structure plan, the Sustainability Assessment Framework (SAF) was prepared and developed since the Year 2012 to focus on the basic principles of sustainability in planning and land use, and its rules that are linked to the Kingdom of Bahrain, which encompassed specific goals for the Years (2020-2030) on all spatial levels, using Key Performance Indicators (KPIs) to assess the degree of implementation of these principles and rules in light of the new regulatory requirements for reconstruction in the various regions of the Kingdom, to implement sustainable development and remove regulatory barriers in order to provide a healthy living environment. Also, Bahrain is currently witnessing key development projects that have been established, and others that are under construction, especially on the northern coast.

Since this new development process will have tangible effects on the patterns and means of transport in Bahrain, especially within the city of Manama and on its current road network, therefore, the national plan proposes the establishment of an expanded network of roads

to facilitate access to the projects that are currently under construction, as well as to the waterfronts that will be established in the future, especially in the northern regions of the Kingdom.

In addition to public transport networks in Bahrain, highways are critical factors in the smooth mobility and movement within the Kingdom, as well as in determining the effectiveness of trade exchange, and in the availability of goods and services. Therefore, the national plan took these development processes into account to avoid traffic jams caused by increased traffic, in addition to strengthening the land connection network with the GCC countries through future projects.

The Urban Planning and Development Authority (UPDA) with issuing its final reports on the guiding rules and guidelines in March 2018 for various planning issues is considered one of the best practices representing action plans, of which are as follows: guidelines for major divisions in community development and growth, guidelines for mega projects, guidelines for major urban developments, guidelines for coastal fronts, guidelines for green areas, and guidelines for heritage.

Moreover, the UPDA has worked with the relevant ministries and institutions of the Kingdom to conclude this initiative by implementing the development strategies included in the plan, which seek to establish a single plan, achieve a specialised economy in global and regional markets, preserve and support environmental resources, develop a coherent and diversified transport strategy, meet housing needs, define public waterfronts, protect Bahrain's cultural and archaeological heritage, meet future military needs, carry out afforestation of the country, and promote a promising future at a steady pace.

It should be noted that this plan achieves two basic elements, which are balance and flexibility, through which the principles of planning that are based on respect for the past and acceptance of what is modern and new (i.e. the design of an integrated traditional-modern society) are integrated, in addition to respecting the existing natural and manmade environments, which add a high value to the national plan when implemented optimally and as anticipated, leading to the achievement of great benefits for all Bahraini residents now and in the future.

In addition, the national plan is the most comprehensive study conducted to date on the assessment of planning needs and requirements in Bahrain over the current century, as it addresses the major visions around which development efforts will be focused in the Kingdom and that would support Bahrain's position in the global economy. Moreover, it is a unified plan and a comprehensive programme for Bahrain's land use at all levels. This vision and programme aim to make the Kingdom of Bahrain one of the most prestigious countries in the world, and allow it to prosperously and endlessly grow, in order to meet its future needs.

#### (1-3-2) Sustainable management and use of natural resources

## (1-3-2-1) Implement environmentally sound management of water resources and coastal areas

Overall, environmental issues are of particular importance in the Bahraini strategic development ideology. As mentioned previously, Bahrain suffers from water scarcity, as it has very little and irregular rainfall, in addition to its actual quantity being low due to evaporation resulting from the high temperature of the air in contact with its land surface and the porosity of its soil. Therefore, the country is largely dependent on groundwater.

Furthermore, due to the rapid population growth and the intensity of human activity, the aquifer was subjected to tremendous pressures, as the unjust and unsustainable use of groundwater led to a decrease in its level and a deterioration in its quality, resulting in the draught of natural springs and the salinisation of agricultural lands that depend on them. At the same time, the effects of climate change and the rise in sea water levels make the situation more difficult and complex. As the invasion of sea water to the aquifer bearing layer, the decrease in rainfall with the increase of temperatures, and the increased demand for water in all sectors, are all factors that had high significance and influence on the trend towards environmentally sound management of the limited water resources.

It is noteworthy that Bahrain is implementing an integrated approach to managing water resources through the Water Resources Management Board that was formed in the Year 2009, and exerts great effort to save water, increase its quantity and storage capacity, and raise its use efficiency to ensure its water security. The available data on the conditions of shallow aquifers in Bahrain indicate the emergence of positive results in groundwater levels and quality due to the reduction of extraction rates from the aquifer to the safe withdrawal limits of 112 million m<sup>3</sup> annually.

Additionally, MOICT is closely cooperating and coordinating with various government agencies to increase the number of monitoring programmes that support raising the efficiency of the use of energy, clean energy, and water resources, therefore, the Ministerial Resolution No. 21 of the Year 2012, concerned with approving the technical regulations related to the tools for rationalising water consumption was adopted, which will enter into force in January 2022, as the supervisory programme aims to minimise water energy waste through the use of guiding tools for its consumption, which in turn shall positively affect the consumer by reducing the operational cost and the water bill by specifying a set of tools used to deliver and supply water to homes.

As for the environmentally sound management of urban coastal areas, due to its many waterfronts, and the multiple ridges along its coasts, Bahrain had special relations with the sea over its long history, but climate changes and global warming will lead to a rise in sea levels, followed by the domination of the sea over the neighbouring land along the coasts with flat topography.

Due to its smooth coastal topography, Bahrain is particularly vulnerable to damage along its coastal strip and adjacent areas due to rising sea levels. It is expected that the infrastructure of coastal plains in Bahrain, which are inhabited by about half of the country's population, where most of its economic activities are concentrated, will be exposed to serious direct threats due to domination of the sea, its groundwater will also be polluted, and its coastal ecological environments will deteriorate. At the same time, land reclamation in expansion of the Bahraini land to accommodate urban growth had negative effects on the marine environment, as over the past century, land reclamation operations have changed the nature of some areas of unique environmental value and established special maritime borders.

Furthermore, desalination processes, by their nature, put enormous pressures on both terrestrial and marine environments, due to the intensity of its energy consumption on one hand, and its contribution to air pollution on the other hand, as well as polluting the marine environment and changing its natural and chemical properties due to the saline dumped into it. Moreover, at the level of environmental issues associated with sea reclamation, land management practices in Bahrain in general, and in coastal regions in particular, follow the general lines of policies to preserve, protect, restore and revive the habitat.

Bahrain's land reclamation strategy has been purposefully designed in a way that reduces the potential environmental risks of the reclamation process, and since 1995, Bahrain has adopted advanced geographic information systems for monitoring and evaluation, which comprises environmental measures that include the following main procedures: conducting environmental studies and research to determine the least valuable marine environments as potential sites for reclamation, transferring creatures and organisms to another safe alternative site, and rehabilitating the coastal environment of the new reclaimed site by planting seedlings of marine plants to mitigate the impact of removing native organisms.

At the same time, a new standard for the extent of the height required for sea filling to build new towns and coastal development projects was set by the concerned authorities in the Kingdom as one of the initial measures to adapt to the phenomenon of rising sea levels.

Since 2006, Bahrain launched its National Environment Strategy (NES), which emphasised the adoption of integrated environmental management principles in the implementation of the sustainable development and preservation of coastal and marine environments, while considering the nature of the interaction between the people and the framework of opportunities, restrictions and limitations within which they work, in its environmental planning.

The national plan has proposed creating a permanent line defining and protecting the existing waterfronts in the Kingdom, as well as finding new places along which new waterfronts and new islands projects can be built. For example, the national plan includes

the establishment of a public waterfront in Juffair and, on the coastal street, parks that will pose as one of the resources and facilities that will distinguish Bahrain in the 21<sup>st</sup> century.

Also, the national plan proposes a significant increase in the waterfronts available to the public throughout Bahrain, as those involved in new construction projects -have been required to allocate 50% of the waterfronts of their projects to be available to the public.

Furthermore, it was stipulated that access to waterfronts be provided with a minimum right of passage, linking each suburb with its waterfront through the rehabilitation of specific spaces for open public spaces, and supporting and promoting fishery in traditional villages and fishing ports, as it is an important element of Bahraini life. In addition, developers are obligated to protect inland coastal ecosystems and marine submerged land systems, which are important habitats for Bahrain's wildlife and must have the highest level of protection (Figure 4).

Additionally, the Kingdom has unified its efforts and made them consistent with national policies aimed at raising the efficiency of sustainable energy management, emphasising the importance of raising institutional awareness among government agencies in particular and society in general about climate change, its effects, mitigation, and adaptation requirements. Also, the country has worked on drafting the necessary national legislations to deal with rising sea levels, and those necessary to support green technologies by directing economic development towards sustainable projects that adopt the concepts of sustainable production and consumption.

In the same context comes raising the efficiency and capabilities of institutions concerned with climate change management, updating its databases, increasing interest in specialised technical studies, raising public awareness of the issue and how to address it, and involving the private sector and civil society in this process.

Indicator: \* There is a plan in place to manage coastal areas and lands in the country within the framework of the National Strategic Structure Plan.



**Figure 4: Expansion of Public Waterfronts** 

Source: Urban Planning and Development Authority, National Strategic Structure Plan: Bahrain 2030 - National Plan Project of the Kingdom of Bahrain

### (1-3-2-2) Drive resource conservation and waste reduction, reuse, and recycling

The issue of waste is intensifying in urban areas in the small island states, especially with the rapid population growth, and the increased daily production of waste per capita, which reached about 1.12 kg/ per capita/ day in Bahrain in the Year 2020 (according to the data from the Information and e.Government Authority), which is a quantity slightly less than the world average of 1.2 kg/per capita/day.

As solid urban waste constitutes 94% of the total generated waste, which is disposed of entirely in Askar's landfill (a rock quarry southeast of Bahrain) since the Year 1986, where it is landfilled, then compacted and covered with a layer of sand.

The correct disposal of waste is one of the important factors in preserving the environment from pollution and upgrading its quality, as well as the recycling and reusing of resources are considered significant methods to rationalise the consumption of environmental resources and preserve them for future generations. Therefore, these two matters are essential in government action plans to implement the SDGs 2030.

The national strategy for the integrated waste management recommended adopting a new approach to the integrated management of waste and improving its governance, starting with reducing individual waste production, to sorting and recycling waste, in order to save resources and recover energy, in addition to increasing the life span of the landfill, especially with limited land in the Kingdom.

Within the framework of this strategy, the Ministry of Works, Municipalities Affairs and Urban Planning (MOWMAUP) undertakes several projects and initiatives to reduce the quantities of waste received at the landfill in order to preserve the environment and enhance its resources within the framework of an integrated system for waste collection, handling and treatment. This system consists of the following elements:

1. The distribution of waste sorting stations/containers from the source that are designed for the public to dispose of recyclable plastic materials, paper, metals and glass in 77 locations.

2.Recycling station for construction and demolition waste, which represents about 40% of the total amount of waste. This facility reuses recycled materials from construction and demolition waste in basic materials for road construction, which reduces the financial cost

of importing and purchasing such materials. The total recycled construction and demolition waste amounted to 379,000 tons for the Years 2019 and 2020.

3.Establishing a pilot demonstration project for the recycling of green waste, of which MOWMAUP is currently in the stages of enhancing product quality and reliability of specifications and moving on to the stages of its basic uses for fertilisation and agriculture. The amount of recycled green waste reached to about 3 thousand tons between the years 2018 and 2020.

4. Raising awareness through continuous educational programmes that include the use of designated environmental buses that visit schools to teach children the three recycling skills: reduce - reuse - recycle.

The total waste recycled from the source in the period (2018 - 2020) amounted to about 246 tons, of which paper waste constituted about two thirds, the plastic waste was about 32%, and the metal waste was 1.5% (Figure 5).

(2018-2020) (kg) 120.000 100.000 80,000 60.000 40.000 20.000 2018 2019 2020 **■Paper ■Plastic** ■Metal

Figure 5: Amount of recycled waste and its use by type

Data source: Ministry of Works, Municipalities Affairs and Urban Planning

In the same context, water used in the various processes of major industries is recycled and reused as well, in addition to wastewater treatment. In terms of industrial water, water represents a major input into production in the Gulf Petrochemical Industries Company (GPIC), as it is used to cool heat exchangers and produce high-pressure water vapour, which is needed to operate turbines. GPIC's water needs are estimated at an average of about 341 million m<sup>3</sup> per year (about 933 thousand m<sup>3</sup> per day), which is completely secured by sea water. The design concept is based on the recycling of approximately 66% of the total process water, while the rest of the project's water needs are met by the desalination unit.

The principle of water recycling is based on the fact that the produced desalinated water is mainly consumed in the form of steam and regenerated as part of the production process, then collected and treated with water produced from reaction processes in factories according to special techniques before being recycled. In terms of wastewater, there are a number of main and secondary treatment plants (from the public and private sectors), for which the secondary treatment rate reached 100% of the collected wastewater during the period (2017-2020), while the proportion of triple-treated sewage water remained the same, and reused water was only about 93% of the total sewage treated in the Year 2020, while the rest is discharged into the sea instead of being exploited. The fact remains that the indicator of the percentage of collected wastewater to drinking water has witnessed a steady increase, reaching 58% in the Year 2015, approaching the international recommended ratio of 60%.

Within the framework of the National Sanitation Strategy, a set of projects have been implemented, most notably the expansion and rehabilitation of major central sewage treatment plants, reduction of leakage in sewage collection projects, transmission and distribution networks, review of the current central sewage system in Bahrain and studying the possibility of replacing it with a decentralised system that includes the establishment of new plants in the areas of Muharraq City, Khalifa Town, and Salman Town, the rehabilitation of some secondary treatment stations, in addition to increasing the potential of tertiary treatment, and on one hand, raising the share of their reuse, while on the other hand reducing the negative environmental impacts on the coastal environment.

Indicator: \* Recycling rate and the number of tons of material recycled (Figure 5).

Moreover, MOICT has implemented many awareness and regulatory programmes related to the environmental field in the Kingdom of Bahrain with the aim of promoting resource conservation, waste reduction and waste management, including, but not limited to the regulatory programme related to the regulation of biodegradable plastic products, which MOICT started implementing since the Year 2019 in cooperation with the Supreme Council for Environment (SCE). This regulatory programme aims to monitory and rationalise the import and manufacture of plastic products to ensure their biodegradability, and the monitoring included plastic shopping, vegetables, and fruits bags, and tables covers, in addition to a project to ban the manufacture, sale or import of bottled water of less than 200ml in the Bahraini market.

Also, MOICT is working to implement additional future projects that will contribute to preserving the ecosystem in the country, including: the project to ban the use of single-use plastic bags, and all of these projects and measures shall contribute to preserving resources, reducing and managing waste, and preserving the state's gains in our surrounding ecosystem.

### (1-3-2-3) Adopt a smart-city approach that leverages digitisation, clean energy and technologies

Smart cities rely on the electronic and digital technologies of the ICT era in providing interactive services to individuals, and therefore it is a region that provides innovation systems and local communication and information technologies.

The term smart city entails that the city adopts elements of creativity in solving problems, which is an urban cluster based on technical, environmental, and social pillars, to eventually include three cities in one: a virtual/information city, a cognitive city, and an environmental city. As the technical pillar provides the city with information and communication technologies, wireless and remote sensing networks, which constitute essential elements of the urban environment, and together form an integrated system for the operation of the smart community and smart urban management.

As for the environmental pillar, it is represented in the city's use of renewable energy resources, and the optimal use of solutions and technologies to improve energy efficiency. While the social pillar is demonstrated in the city's focus on knowledge activities, individual creativity, knowledge institutions, digital infrastructure for communications and knowledge management.

In the field of clean energy, the per capita consumption of electrical energy in the Kingdom is around 12,750 kilowatt-hours annually, and for the sake of energy sustainability, the Government of the Kingdom of Bahrain, through the Sustainable Energy Authority (SEA), has made concrete efforts to diversify the energy mix and renewable energy sources exploitation to meet the needs of the increasing demand for energy and keep pace with the wheel of sustained economic growth in the Kingdom. In the same context, in December 2016, the Government of the Kingdom of Bahrain adopted the National Energy Efficiency Action Plan (NEEAP) and the National Renewable Energy Action Plan (NREAP), and in January 2017, the proposed national ratios were approved to increase the share of renewable energy in the national mix by 5% by the Year 2025, and 10% by the Year 2035, with an increase in energy efficiency by 6% by the Year 2025. At the same time, a project to build a central solar power plant with a production capacity of 100 megawatts was approved.

Moreover, the construction phase of the Al-Dur station for electric power generation using solar and wind energy has been completed, with a total capacity of 5 megawatts, and it is expected to be connected to the national electricity grid. In the context of the achievements resulting from encouraging investment in the field of renewable energy and its uses, the first factory for the production of solar panels in the Kingdom was inaugurated in January 2017, and the second factory was inaugurated in March 2021, in addition to public tendering for major projects to install central and distributation solar energy systems.

The Kingdom of Bahrain is moving steadily towards the generalisation of the use of clean and renewable energy from wind and solar energy, and it is currently implementing several initiatives and practices that shall ultimately lead to the rationalisation of energy use. The SEA is supervising pilot projects that aim to benefit from renewable energy technologies and solutions to reduce the costs of electricity and water production, including the pilot

project for the production of high-quality drinking water at the Al-Dur desalination plant, and the pilot project for the treatment and recycling of sewage for irrigation and industry purposes in Salman Town.

Also, the SEA introduced a renewable energy certificate programme in January 2020, which is granted to entities investing in solar energy systems and enables them to register their production of this energy with the SEA.

This system enables users to overcome some challenges that may limit their abilities to benefit from renewable energy, such as the limited space available to install solar panels or any other technical or financial restrictions, and then it provides the opportunity for investors and financial institutions to evaluate investment opportunities, finance sustainable energy projects and verify energy produced by trusted and certified software and tools. In the same context, the Green Buildings Guide, which was issued in September 2019, in cooperation with MOWMAUP, stipulated a number of mandatory and optional specifications and standards for new construction and restoration works for existing buildings with specifications that will be implemented as per a timetable, leading to a reduction in energy and water consumption in the building.

At the same time, the necessary policies have been prepared to benefit from central air-conditioning to save electricity consumption, especially since air-conditioning constitutes approximately 60% of electricity bills and energy consumption, and it is one of the most important initiatives that contribute to reducing the effects of energy consumption on climate change.

In addition, lighting systems in all government agencies have been changed to more efficient systems that meet or exceed minimum energy performance standards for lighting. Also, the national street lighting infrastructure is being converted from high pressure sodium to LED lights, while renewable (solar) energy is gradually being incorporated into the street lighting system.

In this context, the Government Buildings Energy Management Project was formed, by conducting a series of energy audits in government buildings in order to inform the partners in the relevant authorities and ministries of the size and magnitude of energy conservation opportunities and their priorities.

Also, more projects are being implemented with some recommendations and proposals directed to the Ministry of Finance and National Economy (MOFNE) to develop national programmes for energy management, and work is currently underway to prepare a Green Procurement Guide, which aims to support the Government of the Kingdom of Bahrain in adopting best practices in the field of Green Procurement standards inclusion in government procurement. Additionally, lessons learned will be exchanged with the private sector to generalise the experience and raise awareness of how these standards benefit the user. On the other hand, the vehicle efficiency standards label has been implemented, with the adoption of energy efficiency labels. Furthermore, MOICT developed standards for electric vehicles and is cooperating with the SEA to prepare a national strategy for the adoption of integrated national strategies in electric vehicles for sustainable mobility in the Kingdom. Moreover, The SEA signed agreements with a number of major industrial companies to improve energy efficiency in their facilities and operations by 1% annually over several years, as well as provide the necessary technical support and consultation to assist companies in these endeavours and enable them to fulfill the commitment to improving energy efficiency, to contribute to achieving the approved national goal of improving energy efficiency by 6% by the Year 2025.

Moreover, the MOICT adopted a set of control programmes concerned with rationalising energy consumption and clean energy, beginning with the national control programme for home lighting efficiency, which was implemented in September 2015 and contributed to preventing the import of incandescent lamps "tungsten" that do not meet the requisites of the required efficiency, as they consume a lot of electrical energy while converting to heat rather than light.

Also, MOICT implemented the second control programme to raise air conditioners energy efficiency, which became obligatory in February 2016 by placing an identification card on air conditioners based on stars to express the efficiency of their electrical energy consumption, which enables consumers to compare air conditioners according to their efficiency and choose the most suitable ones. It should be noted that as the number of stars on the air conditioner increases, the device's ability to save electrical energy becomes higher. Both programmes were the fruit of cooperation between the MOICT and the Electricity and Water Authority (EWA).

On the other hand, MOICT has approved the monitoring programme on fuel consumption cards on cars and tires at the national level, after its adoption at the Gulf level, in cooperation with the GCC Standardisation Organisation, which contributes to serving the consumer during the purchase of cars and tires, after checking the amount of fuel consumed for each kilometer per hour, as the card enables the user to choose the most energy-efficient product, and it was applied to car models starting from those of the Year 2018 onward.

In the context of linking the traffic lights with the traffic management and central control systems (SCOOT system), according to the data of the Ministry of Works, Municipalities Affairs and Urban Planning, 15% of the total traffic lights in the Capital Governorate and 5% of the total traffic lights in the Muharraq Governorate have been connected.

Indicator: \* The percentage of reduction in the final annual energy consumption in homes using smart monitoring systems is equal to the value of zero.



# Part II: Effective Implementation

### (2-1) Building Governance Structure: Establishing a **Supportive Framework**

### (2-1-1) Decentralisation to enable local municipalities to undertake their assigned responsibilities

Urban growth creates the need for independent and committed urban authorities that can address urban problems effectively, efficiently, and with full awareness of their dimensions. This can be achieved through administrative restructuring instead of adding governmental administrative layers that can lead to further complicating situations and problems and raise the administrative cost of managing urban growth. However, Bahrain was well aware of the decentralisation of urban administration and the strengthening of local authority in carrying out its responsibilities as early as the end of the second decade of the last century, which is when Manama municipality was established in the Year 1919 as the first municipality in the country, and its basic law that was promulgated in the Year 1920 specified the procedural systems and its broad powers, which included almost all aspects related to sanitation, encroachments on the right of way, acquisition of property for public benefit, building controls, widths of roads and walkways, government land, rental systems, traffic regulations, and approved lengths and weights.

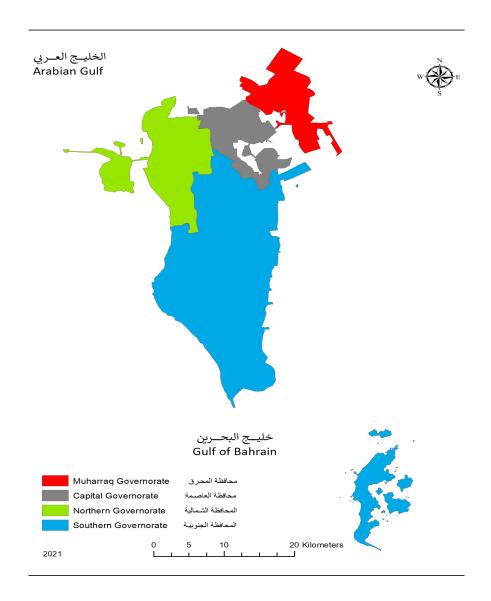
Additionally, the same law specified how people can choose their municipal representatives from their neighbourhoods. The municipal council at that time consisted of 10 elected members who were appointed by the government, and based on that law, the first municipal elections were held in Bahrain in the Year 1922. Subsequently, important amendments were made to the Municipal Law in Bahrain in both the years 1944 and 1951, and among the advantages of this latest amendment at that time was granting women the right to vote in municipal elections for the first time.

This law continued to be in force until Decree No. (35) of the Year 2001 was promulgated regarding the Municipalities Law (Municipal Administration), followed by Decree No. (3) of the Year 2002 regarding the system for electing members of municipal councils in the country, under which these councils were granted powers to intervene in the context of implementing decentralisation. Furthermore, the members of the Municipal Councils of Muharraq, Northern and Southern governorates (Figure 6) are elected for a period of four years, during which their members devote themselves fully to their work in the Council, while the members of the Capital Secretariat Council are appointed by a royal decree.

The implementation of decentralisation and the strengthening of local authorities face a significant challenge due to the small area of the Kingdom of Bahrain, which makes the full implementation of decentralisation difficult, because of the overlapping of work with state agencies and ministries, which leads to wasting efforts and resources.

One of the lessons learned in this field is how important it is to grant broader powers to municipal councils, with the recognition that achieving the highest degrees of coordination between the central municipal administration and the municipal councils of the governorates of the Kingdom in the field of legislations, security and safety, human rights and social inclusion is highly important, as it leads to maximum utilisation of the available resources and guarantees access to services by all its beneficiaries.

Figure 6: Governorates of the Kingdom of Bahrain



Indicators: \* Municipalities exercise their authority and perform their responsibilities in accordance with the procedures, and in the cases stipulated by the constitution or the law. \* Percentage of municipal financial resources generated from internal (endogenous) income sources: N/A.

#### (2-1-2) Link urban policies to finance mechanisms and budgets

The current resource allocation system grants municipalities a small share in the budgets, which reduces their effectiveness and the efficiency of their work in the fields of finance and local development, as the revenues of municipal projects and services are not commensurate with the costs of financing. In order to increase funding, the municipalities used investment contracts of all kinds, ranging from rental to partial and full allocation, as one of the most important tools and formulas it is based on to keep pace with market changes, and reconciling the conditions of projects, facilities, public services and their financing mechanisms, while increasing and diversifying the formulas and derivatives of current contracts and partnerships to reduce risks. Also, defining strategic priorities for the investment of municipal properties is essential for increasing revenues and developing a new investment strategy for these properties that includes restructuring investment and financing objectives.

Indicator: \* Percentage of municipal financial resources generated from internal (endogenous) income sources: N/A.

### (2-1-3) Achieve women's full participation in all fields and all levels of decision-making

The participation of women in leadership levels and decision-making positions reflects the extent of their competitiveness in the various areas of comprehensive development, and the representation of women in these positions is an important indicator of their qualitative contribution to economic life, as demonstrated by the experience of the Kingdom of Bahrain, with the increase in women's contribution to the workforce from 31.8% in the Year 2013 to 42.8% in the Year 2020, in addition to their participation at the various functional levels of public, executive, specialised, educational, diplomatic and judicial positions, constituting about 46% of the executive positions, and 62% of the total specialised positions.

In the government sector, the Kingdom witnessed an increase in the representation of women in the executive staffing table (minister-undersecretary-assistant undersecretary-consultant-expert-director-head of department) by 33% during the period (2001-2020), as 4 women currently occupy the position of minister and persons of equivalent status. While the percentage of female undersecretaries reached 19%, and assistant undersecretaries were at 32% in the Year 2020.

As for qualitative fields, in the field of justice and law, the data indicate a significant presence of women, as the percentage of women in the legal profession increased by approximately 11% during the last six years. Also, the number of female judges and their equivalents has gradually increased until it reached 14 female judges in the Year 2020. In the diplomatic corps, the number of female diplomats reached 100 diplomats. In addition to women's access to leadership positions at the institutional level, as in recent years the Kingdom of Bahrain has witnessed a significant increase in the level of pioneering leadership of women in the commercial field until they assumed the position of CEO in major companies operating in Bahrain and the region.

Additionally, in the field of entrepreneurship, the percentage of women who own individual commercial registers has increased from about 39.5% of the total owners of commercial registers in the Year 2012, to about 43% of the total commercial registers in the first half of the Year 2020. Moreover, the Kingdom of Bahrain has achieved tangible gains for women at the level of political participation, as the Kingdom had a leading experience in this field regionally, as Bahrain was one of the first countries in the region to grant women the right to membership in committees, to participate in elections, and be elected, starting with the right of women to vote in the municipal elections in the 1930s, then by participating in the Supreme National Committee for the preparation of a draft National Action Charter in the Year 2000, which included six women, and to the membership and chairing of committees in both the Council of Representatives and the Shura Council (the National Council).

The percentage of women participating in the Council of Representatives today reached 15% of the total parliamentary seats, in addition to chairing the Council of Representatives for the first time in the last elections for the Council of Representatives, held in the Year 2018, in a precedent that is the first of its kind at the level of the region (Table 5).

Table 5: Seats held by women in parliaments, the judiciary, and jobs (2020)

Indicator	Percentage of seats and jobs	
Seats in the Council of Representatives	15%	
Seats in the Shura Council	23%	
Percentage of seats held by women in municipal councils and the Capital Municipality	23%	
Jobs in the public sector	53%	
Judiciary Judges	12%	

Source: Supreme Council for Women (SWC) and the Information and e.Government Authority (IGA)

On another level, the percentage of women participating in the Shura Council reached 23% in the Year 2020, while their percentage in the elected seats in the municipal councils and the Capital Municipality was about 23% in the same year. In addition, they constitute 50% of the Capital Municipality, and 43% of the number of its employees.

Table 6: Seats held by women in the legislative councils, the judiciary, and jobs (2020)

Indicator	Age	Sex	Parliamentary Committee	Unit
Number of Chairs of Permanent Commit- tees in the Lower House (Council of Repre- sentatives)	≤45	Male	Finance	1
	+46	Male	Foreign Affairs and De- fence	1
		Female	Gender Equality	1
	+46	Male	Human Rights	1
Number of Chairs of Permanent Commit- tees in the Upper House (Shura Council)	+46	Male	Finance	1
	+46	Male	Foreign Affairs and De- fence	1
		Female	Gender Equality	1
	+46	Male	Human Rights	1
Percentage Of Female Parliament Members in The Lower House (Council of Representatives)	≥30	Female	-	0.50
Percentage Of Female Parliament Members in The Upper House (Shura Council)	≥30	Female	-	0.69
Percentage Of <young> Parliament Members in The Lower House (Council of Representatives)</young>	≤45	Both	-	0.69
Number Of <young> Parliament Members in The Lower House (Council of Representatives)</young>	≤45	Both	-	19
The percentage of <young> members of Parliament in the Lower House (Council of Representatives)</young>	≤45	Both	-	47.5
Number of speakers <head> in the Lower House (Council of Representatives)</head>	+46	Female	-	1
Number of speakers <head> in the Upper House (Shura Council)</head>	+46	Male	<del>-</del>	1

Source: Supreme Council for Women (SCW) & the Information and e.Government Authority (IGA)

At the same time, the percentage of women's participation in non-governmental organisations as active members is 15% of the total members, and their participation in decision-making centres as a member of the board of directors is 23% of the total members of the boards of directors.

Indicator: \* Ratios of jobs (by sex, age, persons with disabilities, and population groups) in public institutions (national and local legislatures, public service, and the judiciary), compared to national distributions: see Tables 5 and 6.

#### (2-2) Planning and Managing Urban Spatial Development

### (2-2-1) Implement integrated and balanced territorial (Local & Regional) development policies

The National Land Policy (NLP) in the Kingdom of Bahrain involves a new strategy for the regional organisation of the Kingdom and its urban development in order to improve urban growth through better control of land consumption in order to protect heritage, sites and places, improve the built environment and property production. As NLP implements the idea of "special planning areas" for spatial growth and development, as its utilisation aims to protect and enhance the value of strategic areas such as coasts and heritage buildings, develop natural and artificial green spaces, and develop and upgrade the surrounding areas, in addition to managing projects that have the greatest impact on land use (such as large-scale projects and large residential projects) and controlling them in accordance with the principles of planning and stipulated rules.

Within the framework of this policy, urban development plans in Bahrain seek to improve land use regulations and construction requirements and implement balanced regional and local policies throughout the country. However, this strategy faces a major challenge represented in the lack of available land with the increasing needs of a rapidly growing population. For its part, the Government sought to provide land through land reclamation operations in order to expand the land of the country and advance urban development. On the other hand, the lack of land in the back of urban villages is a restriction on their urban expansion and implementation of comprehensive development plans. As the challenges arising from rapid urbanisation cannot be effectively addressed by traditional

means of regulating land uses and traditional regional and spatial planning, therefore, the Government launched a major initiative to improve the processes handling the availability of land for development purposes and to create and strengthen institutions concerned with land management.

The National Planning Development Strategy (NPDS) in the Kingdom of Bahrain was capable of providing additional areas estimated at about 81 million m<sup>2</sup> of new lands (both sea and land) to increase the urban landscape to accommodate urban development and population increases until the Year 2030.

Urban development initiatives and projects are widespread throughout the country, as NPDS is a comprehensive plan that includes detailed urban development projects for each of the four governorates within the framework of a balanced urban policy that is implemented according to priority on the basis of need through the detailed National Land Use Plan (Figure 3).

As part of the strategy to promote the sustainable urban development projects, the Kingdom of Bahrain has developed an integrated model for land use and transport planning, as these proposed uses have a direct impact on transport, seeking to develop the optimal plan for land use, in addition to the basic infrastructure that supports such uses. Also, this model will be adopted for the assessment of the impact of urban projects and the capacity and feasibility of the new infrastructures.

Indicator: \*The Kingdom of Bahrain has a national urban policy and regional development plans that respond to population dynamics, ensure balanced regional development, and seek to increase the local fiscal space.

### (2-2-2) Include culture as a priority component of urban planning

Bahrain's constructed and unconstructed heritage constitutes the identity of the island's landscape and lifestyle, and is greatly significant as a cultural component of economic development, especially in the field of the tourism industry, as heritage and culture have a comprehensive and integrated role in spatial, social and economic development. The Kingdom of Bahrain is known for being rich with numerous archaeological, historical

and heritage areas that are considered civilisational and cultural legacies. As it has an archaeological wealth of royal tombs, which is the largest historical cemetery in the world located in A'ali, which is full of the Dilmun heritage, as well as its castles in Manama, Muharraq and Riffa, which narrate lively chapters of the country's history. Not to mention the Pearling Path and specialised markets in Muharraq, such as the Gold Souqs; Al-Nahaseen, Al-Qaysariya, Al-Tawaweesh, Al-Kharo, and others. Also, it has a wealth in property of heritage houses and buildings that are scattered around old neighbourhoods of Manama, Muharraq and the Northern Governorate.

It is noteworthy that these areas around the Kingdom have received the attention they deserve in the urban planning of the four governorates of the Kingdom.

Also, these historical areas are not subject to any local regulations and legislations controlling their development, but the Antiquities Protection Law, especially the Antiquities Law of Bahrain of 1970, its amendments in 1985, and its stability by Decree-Law No. (11) of the Year 1995 authorises the Bahrain Culture and Antiquities Authority (BACA) to be responsible for supervising all matters related to the affairs of antiquities and their preservation, determining the archaeological and historical character of objects, sites and buildings, measuring the importance of each antiquity, and estimating the antiquities that must be registered as antiquities in accordance with its provisions.

However, this law does not make the government administration a partner of the owners of these heritage buildings to develop these buildings, so there is a conflict of interest between the owners of the heritage houses and the BACA's endeavour to preserve these buildings, as it requires large financial resources to expropriate these buildings.

Ownership of land in archaeological, historical and heritage areas go towards the state in the sites of ancient forts, and private ownership in the case of heritage houses. BACA works to develop all historical areas and encourages it with self-efforts and donations in order to make these areas ready for recognition by UNESCO as a human heritage. Together with the Ministry of Housing, and the Ministry of Works, Municipalities Affairs and Urban Planning, BACA is responsible for making decisions on development priorities in the areas of historic forts.

Additionally, civil society institutions and civil cultural centers play an important role in developing and preserving heritage areas, such as the Shaikh Ebrahim Centre, which derives its resources from grants, aids and donations from local banks, and some external contributions to implement its important projects, such as the "Al-Diyar Handcrafts" project in the city of Muharraq, and its contribution to the Pearling Path project, which extends over 3 km from Bu Maher Fort on the coast to the Siyadi House in Muharraq, which was approved and recognised by UNESCO as a human heritage.

This last project embodies a formula of positive cooperation between governmental and private institutions and some owners of historical buildings that are included in the project. And as a result of the Kingdom's interest in heritage, Manama was chosen to establish the Arab Regional Centre for World Heritage (ARCWH) for Arab countries.

Also, as a public good with high utility and a potential economic resource, heritage sites have been fully integrated into land development and urban development strategies, considering local areas and their practices at these sites (scale and classification issues).

The apparent contradiction between the two goals of preserving and organising space within the urban plans of Bahrain can be resolved by considering the geographical context of the archaeological sites and historical heritage buildings, and the approach to dealing with the situation varied (limiting the scope of development to the site itself or extending it to include the site's surroundings as well, from one archaeological or heritage site to another, in light of the peculiarities of spatial practice and the possibilities of development of the site and its geographical surroundings). As the planning strategy categorised the planning of archaeological and heritage sites into sites with relatively isolated archaeological features, and others integrated into a dense urban fabric, hence the concepts and applications of development within urban development varied.

Accordingly, Bahrain dealt with its archaeological and historical heritage in planning by classifying it into two main categories:

- 1. Protected areas, including forts, castles, and heritage sites and buildings.
- 2. Special planning areas with specific requirements, namely:

A-Buffer zones for heritage sites: the surroundings of historical sites (such as forts, historical burial mounds) will benefit from a high level of protection to

ensure the quality of the urban landscape, and to maintain and enhance the reputation of these distinguished sites and the visibility of landscapes from the forts.

B-Historic Sites: These include historical sites included in the UNESCO list of urban heritage neighbourhoods and areas (the cities of Manama and Muharraq) and the main villages. As the cities of Manama and Muharraq attest to Bahrain's architectural, economic, cultural and historical heritage, and historic villages in the country guarantee preserving Bahrain's traditional identity and image.

### (2-2-3) implement planned urban extensions and infill, urban renewal and regeneration of urban areas

Indicators: \* Population density is constantly rising, as it was 1,761 people/km<sup>2</sup> in the Year 2015, and increased to 1,875.1 people / km<sup>2</sup> in the Year 2020, and this density varied between the four governorates, reaching the lowest in the Southern Governorate (611 people / km<sup>2</sup>) and the highest in the Capital (6,783 people/km<sup>2</sup>).

### (2-3) Means of Implementation

#### (2-3-1) Financial resources mobilisation

### (2-3-1-1) Develop financing frameworks for the NUA implementation at all government levels

The general government budget is the main financing framework for the implementation of the New Urban Agenda at all levels. Since the Year 2015, the Kingdom of Bahrain started implementing a financial programme aimed primarily at restructuring the public budget, as a set of initiatives have been implemented to raise the quality of services provided, and to enhance the efficiency and governance of government spending, taking into account the citizens' gains, reducing expenses, and increasing revenues, in order to achieve a balance between expenses and revenues in the general budget by the end of the Year 2022.

Some of the most important initiatives in this field were reducing the Government's operating expenses, introducing a voluntary retirement scheme for government employees,

who wish to benefit from it, increasing the efficiency of the Electricity and Water Authority to achieve a balance between its revenues and expenditures, enhancing the efficiency and equitability of direct government support to eligible citizens, enhancing the efficiency of government spending, facilitating government procedures, increasing non-oil revenues, and finally launching a programme to develop the health sector in the Kingdom of Bahrain by changing the role of the Ministry of Health from an operator to a regulator, and the introduction of a comprehensive health insurance system.

Within the framework of this programme, the development of non-oil revenues was accomplished through a number of initiatives, including evaluating the true cost of government services provided in order to deliver more efficient services at a higher quality and lower cost, improving the cost recovery process, periodically reviewing the structure of government services fees and prices to achieve a more sustainable service line in financial terms, and encourage all government agencies to develop and implement plans for revenue development that are supported by research and studies to develop their revenue sources and explore ways to provide high-quality services, and to impose a selective tax on some imported and locally produced goods such as tobacco, soft drinks and energy drinks as of December 30, 2017, then the list was expanded to include vapourised tobacco since June 2018, and the value-added tax (VAT) was imposed at 5% as of 1st January 2019.

Indicator: \* The National Committee for Information and Population is the committee responsible for the implementation of the New Urban Agenda.

#### (2-3-2) Capacity Development

### (2-3-2-1) Capacity development as a basis for formulating, implementing and managing urban development policies

In the field of enhancing technical capabilities for city planning and management, experience has shown the need for more specialised competencies in various areas of urban planning, which requires the cooperation of various local and foreign academic institutions and consultants to develop the skills of its workers and raise the level of their training in its various fields. Also, the Government is working on continuous investment in

capacity building and the introduction of advanced modern technologies in the areas of city planning and management. And in cooperation with academic institutions and other concerned parties, the Government has provided essential and complementary training courses for the employees of the planning authorities, in order to enhance the efficiency of specialists and upgrade their capabilities in planning, implementing and monitoring development projects.

In the same context, a comprehensive oversight framework for urban planning was established in the Year 2012, which is concerned with following up on urban development policies and projects and reviewing these projects, in addition to investing in building specialised cadres in the field of urban planning.

Within the framework of modern technologies, geographic information systems (GIS) and the Global Positioning System (GPS) are used, while modern programmes are constantly being adopted.

For example, the Sustainable Energy Authority (SEA), in cooperation with the Electricity and Water Authority (EWA) and with the support of the United Nations Development Programme (UNDP), organised a free periodic training programme to qualify and authorise contractors and consultants to install solar energy systems in the Kingdom of Bahrain, as one of the areas of competitive renewable energy, as this programme enables companies to activate their role in supporting and encouraging renewable energy projects, and it is highly important for its direct contribution to creating job opportunities in the fields of renewable energy, which in turn receive extensive interest at the regional and global levels.

To date, 6 training courses have been organised with the participation of 300 Trainees, of which 264 trainees have passed the course. The Kingdom of Bahrain constantly strives to search for modern technologies in the areas of urban planning and city management, and to train specialised cadres in them.

At the same time, the number of trained sanitation sector employees at the Ministry of Works, Municipalities Affairs and Urban Planning reached 328 employees between the years 2017 and 2020.

#### (2-3-3) Information technology and innovation

## (2-3-3-1) Develop user-friendly and participatory data and digital platforms via e-government & citizen-centric digital governance tools

The Kingdom of Bahrain occupies a leading position regionally and internationally in digital transformation, as it has attached great importance to technology and the employment of technologies that have contributed to achieving a set of gains, including promoting economic growth, creating qualitative job opportunities, and raising human development rates, leading to a better life for all. Bahrain started its journey in establishing and developing the e.Government services, channels, and its governance with the establishment of the e.Government Authority that was affiliated with the Ministry of the Interior (MOI) in 2007.

The process of developing digital platforms and enhancing the implementation of governance procedures continued with the approval of the new name of the authority in the Year 2015, which is the "Information and e.Government Authority" (IGA) (Decree No. 69, stipulating the merger of the Central Informatics Organisation (CIO), which was established in the Year 2002).

The IGA undertakes the task of promoting the Kingdom of Bahrain as a center for information and communication technology (ICT) in several areas, namely: e-transformation, operations and governance, and the census and population registry. In this context, the IGA proposes the proper general policy, legislation and decisions to implement the government's digital action plans, and those necessary for information technology and central data systems, providing services, and electronic connectivity projects between various government agencies, in addition to providing applications and systems that allow the possibility of holding virtual meetings remotely, chatting, and the exchange of information and files, as well as the establishment of multiple channels to provide electronic services, and providing technical support and assistance to ministries and other government agencies.

Through a number of successive strategies, the Authority succeeded in achieving full integration between governmental efforts in order to provide better and faster services to citizens, and the Kingdom of Bahrain became a pioneer in the field of e.Government,

as its general ranking rose in the United Nations e.Government Report 2010, moving from the 42<sup>nd</sup> position to the 13th globally, 3<sup>rd</sup> in Asia, and 1st in the Gulf, Arab and Middle Eastern countries, in addition to its success in launching more than 500 electronic services through several electronic channels, including the national portal (bahrain.bh), smart device applications (Bahrain.bh/apps), services centres, and self-service platforms for e.Government services, in addition to the government services of the National Contact Centre.

Currently, the e.Government has become an integral part of the system of services provided by the government to citizens, residents, visitors, business owners and government agencies, and due to these achievements, the Information and e.Government Authority has become one of the world's leading institutions and has been recognised through several global, regional and local awards and indicators, with advanced ranks in various global indicators.

Furthermore, indicators of customer satisfaction with the services provided electronically increased, as the rate of customer satisfaction with the electronic services provided through the national portal reached 73%, according to the Survey of the Year 2020.

The Kingdom of Bahrain's national strategies focus on improving the standard of living against reduced government costs, and the digital government strategy 2022 is consistent with this approach and the Government Action Plan (2019-2022), including adopting modern technologies in various government sectors, encouraging the transition to cloud computing services, employing artificial intelligence in providing innovative services and creating new sectors to cause the development revolution, enhance cybersecurity, promote the transition to electronic services, and the provision and governance of spatial information.

This electronic transformation in government services is achieved by employing information and communication technology to facilitate knowledge management and the completion of work in a professional, easy, low-cost manner that ensures information security. As the vision, mission and objectives of the future strategy will revolve around creating a strong, flexible and safe environment to encourage innovation in public services, which contributes to the dissemination of knowledge that enables officials to make decisions, and develop services further, making it easier to implement them at the lowest cost.

As a result of these efforts, Bahrain ranked first in the Arab world in the ICT Development Index (IDI) of the International Telecommunication Union (ITU) report and ranked 4th globally in the Telecommunications Infrastructure Index (TII) in the United Nations e.Government Readiness Report 2018. Therefore, The Kingdom of Bahrain is considered one of the countries that has a technology and information technology infrastructure that is fully equipped to accommodate and adopt new and emerging technologies, especially since the percentage of Internet users in Bahrain has reached 99.5%, which is considered the 3<sup>rd</sup> in the world according to the ITU report.

Bahrain has been and still is one of the first countries to support technical institutions and companies and is keen to provide the appropriate regulatory environment for them, as the Kingdom appreciates the great role of these institutions in advancing the national digital economy.

Furthermore, the Kingdom of Bahrain is considered the 1st country in the Arab Gulf region to completely liberalise its telecommunications sector, and this has contributed to creating a solid infrastructure for the information and communication technology (ICT).

The e.Government strategy is based on a key idea, which is to improve service delivery by activating multiple electronic channels for services to facilitate customers' access to their required services at the lowest costs and according to the highest quality levels of network connectivity.

One of the best practices in this field comes from the Ministry of Housing, which launched the first phase of the electronic transformation plan for its services on 28 February 2021 by providing 5 electronic services, of which are the submission of housing requests, inquiring about these requests, updating the contact details and bank account of the service applicant, applying for Mazaya request, and submitting a financing request through the national e.Government portal website, as well as launching of the housing application for smart devices.

Some electronic services have also been added recently, such as the right of disposal, the electronic contract, and others. Subsequently, the Ministry will begin to develop a plan to implement artificial intelligence in electronic services for the next stage.

On the same premise and in order to promote the principle of equal opportunities and gender balance in accessing, benefiting from and contributing to the digital infrastructure, the Kingdom of Bahrain, represented by the Supreme Council for Women, launched a National Initiative for Gender Balance in Future Sciences.

Future sciences are defined as all qualitative fields related to the Fourth Industrial Revolution, including those centred around the idea of digital transformation. As the initiative aims to support digital transformation efforts in the Kingdom of Bahrain and build a knowledge economy based on the principle of equal opportunities, through 6 pivots, which are legislations and policies, education and skills, scientific research and development, knowledge management, and consultancy and services. The initiative targets several indicators that shall expectantly be reached to measure the impact of implementing this initiative by the Year 2030.

Through these transformations, it is expected that the Kingdom of Bahrain will witness an anticipated rise in the rates of women's participation in the work sectors, especially in the area of their access to leadership and quality positions. The significance of implementing this initiative lies in its leading to an improvement in the indicators of women's economic participation, which will contribute to reducing the gap between men and women in economic participation within vital sectors.

Indicators: \* All four governorates of the Kingdom use e.governance tools and citizencentered digital governance, as these tools and services fully cover all regions of Bahrain.



### Part III: Follow Up & Review

#### (3-1) Follow Up & Implementation

The government of the Kingdom of Bahrain is proceeding according to a specific methodology to implement Bahrain Economic Vision 2030, as its action plan for the period (2019 - 2022) emphasises the achievement of the SDGs 2030, and within the framework of this emphasis, the New Urban Agenda received great attention.

From the outset, many consultative meetings and discussion forums aimed at presenting, evaluating and providing feedback on the achievements in urban development were held at all levels of the executive government, parliamentary and municipal councils, governorates, the private sector, civil society organisations and academics, to exchange visions and identify trends and duties.

The National Committee for Information and Population is responsible for supervising the implementation of the New Urban Agenda, preparing and reviewing national reports thereto, in addition to reviewing and evaluating performance.

Moreover, the Government is currently working, in cooperation with the United Nations Human Settlements Programme (UN-Habitat), to establish the National Urban Observatory to be a centre for urban data and calculating its various indicators, which will help accelerate monitoring, performance and follow-up, while training the required national cadres for this project.



### **Appendices**

#### **Open Data Links**

- https://www.legalaffairs.gov.bh/Media/LegalPDF/K2714.pdf
- https://www.sjc.bh/page\_016.php?pID=321
- https://www.lloc.gov.bh/15307.aspx?cms=q8FmFJgiscJUAh5wTFxPQnjc67hw2%Bcd53dCDU8XkwhyDqZn9xoYKj2iFCk9JihGQNcRahiMPl7AepqwrK6ayMw3%D3%D
- https://www.bahrain.bh/wps/portal/
- https://www.sce.gov.bh
- https://www.mofne.gov.bh/OpenData.aspx
- https://www.mofne.gov.bh/FinancialFramework.aspx
- https://www.ebdaabahrain.com/
- http://data.gov.bh/en/ResourceCenter
- http://www.scw.bh/ar/pages/default.aspx
- www.sea.gov.bh
- http://housing.gov.bh)
- http://mtt.gov.bh
- http://www.mun.gov.bh
- https://upda.gov.bh/category/land-zoning
- https://www.tamkeen.bh/
- http://www.mys.gov.bh/
- http://moic.gov.bh
- http://www.bahrainchamber.bh
- http://www.sdgs.gov.bh
- https://cutt.ly/PWTEZH9
- https://cutt.ly/xWTEHEn
- https://cutt.ly/UWTEOyd
- https://cutt.ly/MEIQRM2



## Kingdom of Bahrain National Report









































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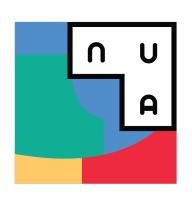












IMPLEMENTING
THE NEW
URBAN AGENDA

