



**SUSTAINABLE
INFRASTRUCTURE
PARTNERSHIP**



VIEW OF WHITAWASHED HOUSES SITUATED ALONGSIDE THE FAMOUS, UNESCO ENLISTED, PEARL TRADE TRAIL IN AL MUHARRAQ ISLAND, BAHRAIN © DUDIAJZOV / ADOBE STOCK

BAHRAIN

PEARLING TRAIL TO
SUPPORT COMMUNITY
DEVELOPMENT AND
CULTURAL TOURISM
IN BAHRAIN



2024

The International Good Practice Principles for Sustainable Infrastructure

set out ten guiding principles that policymakers can follow to help integrate sustainability into infrastructure planning and delivery. They are focused on integrated approaches and systems-level interventions that governments can make to create an enabling environment for sustainable infrastructure. This case study illustrates specific aspects of one principle in a country context, showing good practices and challenges, and considering potential for advancement or replicability.

GUIDING PRINCIPLE 7: ENHANCING ECONOMIC BENEFITS

Infrastructure should create employment, support local enterprises, and build amenities that benefit communities, thereby maximising and safeguarding its economic benefits.

BACKGROUND

The Kingdom of Bahrain is an archipelago of 36 islands located in the Persian Gulf in West Asia. As the smallest Gulf State occupying 758 square kilometres, 92 percent of the total land area is taken up by the marine regions, where nine out of 10 people reside on its coasts (Bahrain, Directorate of Environmental Assessment and Planning 2009). Due to its strategic geopolitical location at a crossroad of trade routes between Africa, Asia, and Europe, Bahrain has a wealth of archaeological and cultural sites that date back 5,000 years (Naseeb, Lee and Choi 2021). Specifically, Bahrain's economy was for millennia shaped by harvesting pearls from oyster beds – i.e. pearling – in the Persian Gulf. The island of Muharraq is one of the last remaining heritages that hosted the development of pearling culture and associated infrastructure from the 2nd and early 20th centuries (United Nations Educational, Scientific and Cultural Organization [UNESCO] 2018).

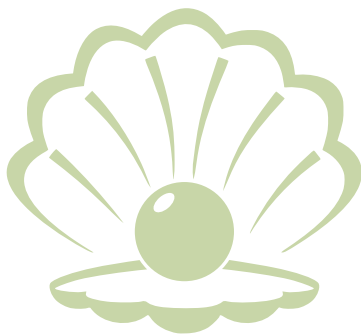
Muharraq's urban pearling trade centre is still a historic city centre in Bahrain (UNESCO World Heritage Centre 2022). In the 1920s, around 27 per cent of Bahrain's population was engaged in the pearling economy (The World Jewellery

Confederation Congress 2019). However, the pearling communities and traditional culture declined in the 1930s due to competition with other countries and the discovery of oil in Bahrain (Woodward, 2014). Bahrain then underwent a structural change and became an oil-based economy with rapid urbanization creating severe environmental stresses. 182,000 square metres of sparse coral habitat was destroyed between 1985 to 1992, due to a large amount of sediment directly dispersing towards the Muharraq dredging area following land reclamation (Rezai, Wilson, Claerebout and Riegl 2004).¹ As these different factors combined, Muharraq's cultural significance waned, the original inhabitants left, the historical buildings became unrefurbished and uninhabitable, and the island became densely populated with fewer skilled work opportunities (Naseeb, Lee and Choi 2021).

¹ Notably, one-third of the current reclaimed land in Bahrain was made from 1981 to 1985 (Al-Madani *et al.* 1991). Yet, most reclamation projects during that period did not obtain corresponding environmental permits (Al-Madani *et al.* 1988).

Oil dependence further drove the Government of Bahrain's attempt to diversify its economy, as it aimed to push more sustainable growth with tourism at the beginning of the 21st century (Karolak 2014). Indeed, tourism and its infrastructure hold significant potential to attract investment, create jobs and deliver socio-cultural benefits, but they must be carefully developed to avoid consumption of key natural resources, and generation of waste, greenhouse gas emissions and loss of biodiversity in line with all the UN Sustainable Development Goals (SDGs).² Thus, with the nostalgia for Muharraq's cultural tradition and the significant influx of tourists from around the world, there was a considerable demand to initiate an infrastructure project that supports community development and cultural tourism, while also ensuring environmental sustainability (El-Masri 2010). In the 2010s, the "Pearling Trail" was eventually created – together with UNESCO – for architectural and urban conservation in Muharraq (UNESCO 2018).

Overall, national heritages related to biodiversity – such as pearling with a focus on preserving traditional and sustainable agriculture methods – are protected through the Pearling Trail. The innovative use of traditional buildings, the construction of new buildings that serve as cultural centres and the utilization of public spaces have all contributed to a resurgence of cultural and economic events on the island.



² Tourism is included in the targets of SDGs 8, 12 and 14 on inclusive and sustainable economic growth, sustainable consumption and production and the sustainable use of oceans and marine resources, while, in addition to SDG 9, infrastructure influences 92 per cent of the SDG targets overall (Thacker et al. 2018).

THE PEARLING TRAIL

Since 2012, the Bahrain Authority for Culture and Antiquities (BACA) has restored, refurbished and protected a 3.5-kilometre Pearling Trail that links a seashore on Muharraq's southern edge, three oyster beds and 16 historic structures (Islamic Development Bank 2016). To further increase the significance of the project and revive Muharraq's customs and traditions, BACA decided to expand the scope of rehabilitation beyond the context of conservation. Urban and architectural initiatives were thus launched, including creating two visitor centres, four parking lots and 17 public squares, alongside the façade improvement of 400 houses along the trail. With success in preserving Bahrain's prestigious natural and cultural value, the Pearling Trail was listed as one of the World Heritage Sites by UNESCO (UNESCO 2018).



NARROW WHITEWASHED ALLEYS OF THE BAHRIAN PEARLING PATH IN OLD TOWN DISTRICT, A CULTURAL HERITAGE SITE IN MUHARRAQ, BAHRAIN

POLICY ENVIRONMENT FOR INFRASTRUCTURE INVESTMENT

The success of the Pearling Trail has been enabled by a more favourable policy environment for infrastructure investment. In 2008, Bahrain's Economic Vision 2030 outlined the government's plan to foster economic and urban growth while protecting and renewing damaged natural habitats in the country, providing a well-thought-out balance between economic and environmental mandates (Government of Bahrain and UN 2021).

New investments, including USD 900 million in road and sewage infrastructure, have sought to boost socio-economic development and connectivity (United States of America, International Trade Administration 2022). This has created a secure foundation for business activities, while connecting the Pearling Trail to

other infrastructure systems. With respect to preservation, the Bahrain National Detail Land Use Plan is further concerned with protecting and managing archaeological and cultural sites with a history stretching back 5,000 years (Government of Bahrain and UN 2021). The Pearling Trail is one of the many conservation projects that consolidates the National Detail Land Use Plan with efforts to safeguard biodiversity (UNESCO 2018).

To ensure that natural reserve areas are cautiously designated at traditional pearling sites from the social, economic, environmental and cultural perspectives, in 2015, Islamic Development Bank provided a fund of USD 48 million to the Government of Bahrain for the payments for the goods and services eligible to be procured for the Pearling Trail, in accordance with the Guidelines for Procurement of Goods and Works Under Islamic Development Financing (Islamic Development Bank 2016).

BIODIVERSITY PRESERVATION, CULTURAL CONSERVATION AND URBAN REGENERATION

The main contributions of the Pearling Trail are three-fold. Firstly, it helps minimize loss of biodiversity and urban sprawl by institutionalizing the protection of the three oyster beds and marine buffer zone. In 2011, those sites became national marine protected areas under the Fisheries Directorate and Supreme Council for the Environment (Naseeb, Lee and Choi 2021). This supports the broader preservation of species that sustain corals, mangroves, sea grass beds and fisheries, and the sustainable use of Bahrain's marine resources more broadly (UNEP 2017). Pearl-forming oysters themselves, like other living creatures, are also sensitive to changes in the surrounding environment. In the same year, the Ministry of Culture created a comprehensive strategy for conserving Muharraq's historic character, including new laws that restrict the expansion of unplanned construction or population (UNESCO World Heritage Centre 2022).

Secondly, it includes culture as a priority component of urban planning. BACA established the "Old Muharraq District" to maintain the original settings and historical contexts of the pearling testimony alongside conserving the urban heritage on the island (UNESCO 2018). Notably, a substantial amount of labour-intensive work is needed. Thus, the Government of Bahrain conducted a procurement process to recruit workers from across the skills spectrum to repair those BACA-owned historic sites at risk of collapse (Tender Board of Kingdom of Bahrain 2022). Meanwhile, amid challenges, civil society plays a growing role in the cultural elements of the projects by operating civil cultural centres along the trail, revitalizing the culture and history of the Bahraini people (Government of Bahrain and UN 2021).

Thirdly, Public-Private-Partnerships and innovative financing are widely adopted for expanding the scope of urban regeneration in Muharraq. The financial burden of the restoration was shared by both the public and private sectors as part of Shaikha Mai's sponsorship campaign, bringing together the urban sectors and the banking and financial organizations in the country (Bahrain Authority for Culture and Antiquities 2022).



LOCAL WOMEN VISIT BAHRAIN FORT (QAL'AT AL-BAHRAIN)

FROM SINGLE-PRODUCT ISLAND ECONOMY TO DIVERSIFIED URBAN ECONOMY

As the Gulf Cooperation Council's (GCC) third most popular travel destination after United Arab Emirates and Saudi Arabia in 2019 (GCC-Stat 2020), Bahrain has mainly drawn leisure and business visitors from neighbouring countries. The development of the Pearling Trail further consolidates Bahrain's diversification of the urban economy and the promotion of cultural, creative and tourism industries. Stretching for 3.5 kilometres – beginning with pearling sites (*hayrat*) to the homes of pearl divers, shipmasters and traders, and finally to the Pearl Museum – this project generates a range of socio-economic impacts (Government of Bahrain and UN 2021). These include new employment opportunities, although, as highlighted by the International Labour Organization (ILO) (2017), issues remain with regard to the broader *kafala* system, whereby responsibilities are delegated to employers to oversee both migrant workers' employment and migration status.³

³ While in 2016, the Government of Bahrain unveiled a more flexible work permit that allows illegal migrant employees to serve as their own sponsors, the legal workers may still find it hard to afford a self-sponsorship (ILO 2017).

Elements of the Pearling Trail also specifically focus on community development. Not only can this help attract Bahraini citizens from different parts of the country to the historic site, but the historic site itself became part of modern Bahraini society. Notably, surrounded by the 'Ammarat of the traditional market, the visitor and experience centre of the Pearling Trail is situated in the heart of Muharraq (Government of Bahrain and UN 2021). This centre caters to a diverse group of audiences as a public space, and popularizes the area as a weekend destination for families and artists.



SIYADI HOUSE IN MUHARRAQ, BAHRAIN

REPLICABILITY

As selected as the 2018 Islamic Capital of Culture (Islamic World Educational, Scientific and Cultural Organization 2018), the model of transforming the historic Muharraq into a vibrant cultural community for tourism can provide inspiration – especially for the Islamic world. The Pearling Trail demonstrates the preservation of local cultures and biodiversity, and a significant contribution to wider community revitalization in the country. After all, it has presented a possibility for the future development of Islamic-family-friendly events, expanding the tourist arrivals from business and leisure visitors to Muslim family travellers. The engagement of civil society in operating civil cultural centres in the zone also encourages businesses run by small and medium operators, while stimulating employment and facilitating the inpour of revenue from the tourism sectors into community development.

KEY INSIGHTS



- ▶ The Pearling Trail in Bahrain showcases the crucial role that cultural and environmental traditions and heritages can play when integrated into infrastructure development.
- ▶ A tension between economic and preservation goals was addressed by taking into account the functions of archaeological sites, heritage structures, the marine environment and the newly built supporting infrastructure.
- ▶ Local communities are integrated in the planning of tourism infrastructure, further diversifying economic sectors and empowering small businesses in Bahrain.

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