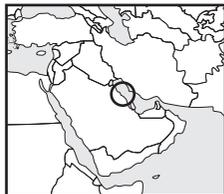


Two vital resources exhausted: a degraded future



Any attempt to achieve sustainable development in this island kingdom is doomed because the country's water supply is running out. Although water is a non-renewable resource in Bahrain, not only is it being consumed in a most irresponsible way but also the limited supply is being polluted by industrial waste from the production of oil, another resource that will soon be exhausted. These problems are aggravating inequities and social unrest, but the Government has no adequate response and no contingency plans.

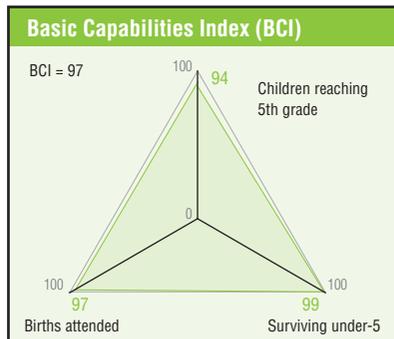
Social Watch Bahrain
Abdulnabi Alekry

In February 2011, as part of the so-called "Arab Spring," demonstrators took over the Pearl Roundabout in the capital city of Manama; some time afterwards Government security forces repressed them with extreme violence. The protesters were calling for political and social change and an end to the monarchy, but their demands did not include a call to tackle a problem that is a matter of life and death in Bahrain: the need for strict controls to manage the country's very limited natural resources. In a ranking of countries by the British risk analysis firm Maplecroft in 2011,¹ Bahrain ranks as the most water-stressed country in the world, followed by Qatar, Kuwait, Saudi Arabia and Libya. This means it is most at risk of exhausting its water supply completely in the short or medium term.

A looming catastrophe

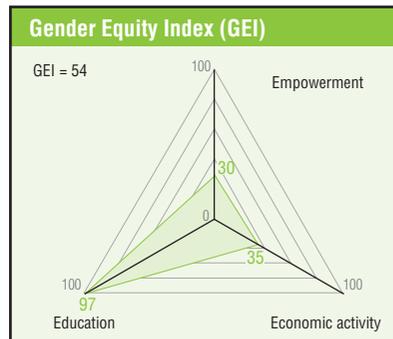
The country's biggest problem – and also the main obstacle to sustainable development – is the shortage of water. According to the International Water Poverty Index,² a county is in a water scarcity situation if its supply is less than 1,000 cubic metres per capita per year; in 2007 Bahrain's supply was only 470.3 cubic metres per person.³ The total surface area of the kingdom is just 665 square kilometres (smaller than King Fahd airport in neighbouring Saudi Arabia) but it has a population of more than 1.2 million, half of whom are foreign residents.

Almost all the fresh water consumed comes from three non-renewable aquifers that lie under the main island (Bahrain is made up of 32 islands). On World Water Day in 2010, Rehan Ahmed – an environment expert from the Public Commission for the Protection of Marine Resources, the Environment



and Fauna – admitted that average water consumption per person was around 400 litres per day, which is far above the world average of 256 litres; Japan, for example, consumes only 60 litres per person per day. He noted that the water consumption rate is rising by 8–10% per year and underground reserves are running low.⁴ In 1998 the amount of water from the main aquifer used just for crop irrigation came to an estimated 204 million cubic metres, but environmentalists consider it is unsafe to extract more than 100 million cubic metres per year because Bahrain's average annual rainfall is less than 80 millimetres,⁵ which comes nowhere near replacing what is being consumed.

Since the 1970s one of the main strategies to slow down the depletion of Bahrain's aquifers has been to build desalination plants to process seawater. This plan went into operation in 1974 and by 2000 there were four plants that produced a total of 73 million gallons of potable water per day.⁶ When this is added to the yield from the country's aquifers and to what is recycled for irrigation, current total production per day is 142 million gallons. Daily consumption however is 140 million gallons, which means there are no reserves of potable water. The Government is currently im-



plementing plans to build nine new desalination plants and increase production to 242 million gallons by 2030. The goal is to build water reserves up to 420 million gallons, which would provide three days' supply in case of emergency.⁷ There is a suggestion that wind energy could be used to power the new plants.⁸

Over the years the Government has made other attempts to tackle the water scarcity problem, including campaigns for households to re-use unpolluted waste water, but the results have either not come up to expectations or created new problems. An ambitious project was initiated in 1977 to recycle water from sewage treatment plants, and for decades the population was warned that this water was only for watering parks and gardens and was not suitable for human consumption. In 2006 Samir Abdullah Khalfan, the Director of Public Health, issued a warning that children or people in a delicate state of health should not be taken to parks that were irrigated in this way because there was a danger of contracting hepatitis A.⁹ This announcement led to the temporary closure of the treatment plant, but it

1 Maplecroft, *Maplecroft index identifies Bahrain, Qatar, Kuwait and Saudi Arabia as world's most water stressed countries*, (25 May 2011), <www.maplecroft.com/about/news/water_stress_index.html>.

2 Peter Lawrence, Jeremy Meigh and Caroline Sullivan, "The water poverty index: An international comparison", *Keele Economic Research Papers* 2002/19, <www.keele.ac.uk/depts/ec/kerp>.

3 ChartsBin, *Total Water Use per capita by Country*, <chartsbin.com/view/1455>.

4 TradeArabia News Service, *Bahrain Water Consumption Soars*, (23 March 2010), <www.tradearabia.com/news/env_176867.html>.

5 A. Bashir et al, *Development of water resources in Bahrain*, <www.emro.who.int/ceha/pdf/proceedings17-water%20resources%20in%20Bahrain.pdf>.

6 Global Water Intelligence, "Bahrain to Scale up Desalination Capacity", (October 2000), <www.medrc.org/old_site/new_content/industry_news/sep00/story3.htm>.

7 E. Baxter, "Bahrain plans to double water production by 2030," *Arabian Business*, (30 May 2010), <www.arabianbusiness.com/bahrain-plans-double-water-production-by-2030-271618.html>.

8 WaterLink International, *Wind-powered Desalination for Bahrain*, (8 February 2011), <www.waterlink-international.com/news/id1687-Windpowered_Desalination_for_Bahrain.html>.

9 S. Hamada, "Dependent on Desalination, Bahrain Faces Water Conflicts," *The WIP*, (2 March 2009), <www.thewip.net/contributors/2009/03/dependent_on_desalination_ba.html>.

was re-opened shortly afterwards with no research at all into the risks.¹⁰

The irresponsible way that Bahrain is using up its non-renewable water reserves is like the developed world's attitude to the indiscriminate consumption of the planet's oil reserves.

Oil and food

Some 92% of the archipelago's surface area is desert and only 2.82% is cultivable land. The people's main food is fish, which is abundant in the Persian Gulf. However the area's marine ecosystem is being degraded by oil pollution, which means people are growing increasingly dependent on imported food. For an economy based on a non-renewable resource, oil, this is yet another warning sign that sustainable development may be out of reach.

The oil comes from extensive deposits that stretch from the middle of the main island nearly to the southern tip. Bahrain produces 22,400 barrels of crude per day, the resulting income accounts for 60% of GDP. In 2009 its oil reserves were calculated at 124 million barrels.¹¹

These large oil revenues have served to raise the people's general level of well-being considerably, although there are still pockets of poverty and serious inequities in society. Nearly 90% of the adult population can read and write and life expectancy at birth is 76 years. In 2002 women were given the right to vote and to stand as candidates for election, although no woman actually did so in 2002 and even today they participate little in politics. In 2008 the unemployment rate was under 4%, of which 85% were women.¹² In 2007 Bahrain became the first Arab country to institute an unemployment benefits system.

The effects of increased tourism

In 1986 the King Fahad Bridge linking Bahrain's main island to Saudi Arabia was inaugurated. Since then tourism has become a big source of foreign currency and contributes 10% of GDP.¹³ Manama has become a major entertainment centre in the region thanks to relatively more relaxed Islamic legislation than in neighbouring countries, livelier night life and more liberal cultural standards. The impact of this invasion of visitors seeking a good time has provoked

10 Ibid.

11 GlobalEDGE, *Bahrain: Statistics*, <globoledge.msu.edu/countries/Bahrain/statistics/>.

12 Khaleej Times, *85pc unemployed in Bahrain are females*, (4 August 2008), <www.khaleejtimes.com/darticle.asp?xfile=data/middleeast/2008/August/middleeast_August80.xml§ion=middleeast&col=>.

13 Yaroslav Trofimov, "Upon Sober Reflection, Bahrain Reconsiders the Wages of Sin," *The Wall Street Journal*, (10 June 2009), <online.wsj.com/article/SB124450701841896319.html>.

EQUALITY MUST COME FIRST

Although the majority of the people in Bahrain are Shia Moslems, the ruling family and the political elite are Sunni Moslems who control the State because the executive power has more administrative muscle than the legislative, which is freely elected. Under the prevailing system Shia Moslems cannot hold government positions and Parliament can do nothing to remedy this situation. The Sunni minority works actively against the Shia community and makes it very difficult for them to access the best paid jobs, decent housing, State services or any position of influence except what they can obtain in popular elections.

In an effort to redress the imbalance in the population, the ruling minority is even trying to encourage Sunnis from other parts of Southern Asia such as Baluchistan and Syria to settle in the country by offering them very attractive terms.

The social injustice and inequities erupted in February 2011 with demonstrations in Manama. While these began as an apparent show of support for the popular uprising in Egypt and took place in front of the Egyptian embassy, they later moved on to the Pearl Roundabout where demonstrators called for an end to the regime of King Hamad bin Isa al Jalifa, which has been in power since 1999. After several days of tension the army moved in on 15 February and opened fire on the crowd, killing one person and wounding 50,¹ but the demonstrators did not give up. Despite protests from the international community the violent repression went on. The Government had the Pearl Roundabout demolished on 19 March and even went so far as to call in foreign security forces from Saudi Arabia and the United Arab Emirates to help put down the demonstration.

The protest movement eventually unravelled without obtaining significant concessions. According to the novelist Fareed Ramadan, a Sunni Moslem who supports the demonstrators' cause, many mistakes were made by the Government, by the Sunni community leadership and by the protesters as well.² The human cost of this State repression has been 24 demonstrators dead, more than 500 injured, hundreds imprisoned – many of whom have presumably been tortured – and an unknown number of non-Sunni foreigners deported.³

1 Euronews, *El Ejército de Baréin dispara contra la multitud*, (19 February 2011), <es.euronews.net/2011/02/19/el-ejercito-de-barein-dispara-contra-la-multitud/>.

2 C. Murphy, "Why the protest movement in Bahrain failed," *Globalpost*, 5 April 2011. Available from: <www.globalpost.com/dispatch/news/regions/middle-east/110404/bahrain-protests-unrest>.

3 A. Sambidge, "Bahrain minister says 24 people dead in uprisings," *Arabian Business*, (29 March 2011), <www.arabianbusiness.com/bahrain-minister-says-24-people-dead-in-uprisings-390813.html>.

a reaction, and in 2009 the laws regulating the consumption of alcohol and other recreational activities were made stricter. Adel Maawdah, a Member of Parliament who supported the imposition of tighter controls, commented that "Bahrain has become the brothel of the Gulf and our people are very angry about this. We are against the consumption of alcohol but we are also against all the things it brings with it like prostitution, corruption, drugs and human trafficking."¹⁴

This tourist boom has paid for an array of extravagant projects such as architectural follies in the capital city, a Formula One racetrack for the Bahrain Grand Prix and, astonishingly in a country where widespread drought is just round the corner, a large number of water parks.

Conclusion

Bahrain will be plunged into crisis in the near future when its water and oil reserves are exhausted. To quote Waleed Al Zubari of the University of the Persian Gulf: "We are using up most of our water and we do not know what will happen when it runs out. We must weigh the immediate benefits of using this water against the long term impact."¹⁵

Yet when the Arab Spring wave of protests broke out in February 2011 the demonstrators were not demanding better environmental controls or that the Government should make coherent plans to safeguard the country's future; they were demanding greater social and political freedoms and in particular an end to discrimination against the Shia majority by the Sunni minority (see box). ■

15 TradeArabia, *Water demand 'threatens Bahrain's future*, (9 February 2010), <www.trade Arabia.com/news/ENV_174596.html>.

14 Ibid.