Progress towards the implementation of SDG 6 (*Clean Water and Safe Sanitation*) in the Kingdom of Bahrain

Environmental Policies and Planning Directorate
December 2019
Ensuring safe drinking water and sanitation, improving water quality, reducing pollution, addressing water scarcity issues and increasing the efficiency of their uses, protecting and restoring ecosystems, improving water resources management, increasing international coordination and cooperation, supporting capacity building, promoting community participation in water and sanitation related activities and programs.
Target (6.1): “By 2030, Achieve Universal and Equitable Access to Safe and Affordable Drinking Water for All”

Indicator (6.1.1): “Proportion of Population Using Safely Managed Drinking Water Services”

2000-2015
99%
2016
100%
Target (6.2): "By 2030, Achieve Access to Adequate and Equitable Sanitation and Hygiene for All and End Open Defecation, Paying Special Attention to the Needs of Women and Girls and Those in Vulnerable Situations”

Indicator (6.2.1): "Proportion of Population Using Safely Managed Sanitation Services, Including a Hand-Washing Facility with Soap and Water"

- 2000-2014: 73-90%
- 2016: 85%

Indicator (6.3.1): “Proportion of Waste Water Safely Treated”

Indicator (6.3.2): “Proportion of Bodies of Water with Good Ambient Water Quality”
**Indicator (6.3.1): “Proportion of Waste Safely Treated”**

<table>
<thead>
<tr>
<th>Year Period</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2016</td>
<td>Average percentage of sewage water treated with respect to sewage water collected = 99.9%</td>
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<tr>
<td>2008-2016</td>
<td>Reduction in percentage of sewage water recycled with respect to sewage water treated from 40.5% to 26.5%</td>
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<tr>
<td>2000-2016</td>
<td>Average percentage of sewage water recycled with respect to sewage water treated = 27.8%, which is very low</td>
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<td>2007-2016</td>
<td>Percentage of safe samples for sewage water has achieved an acceptance rate between 80% to 99%</td>
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<tr>
<td>2000-2016</td>
<td>Reduction in percentage of wastewater treated with respect to wastewater collected from 79.6% to 73.5%</td>
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<tr>
<td>2014-2016</td>
<td>Raise in percentage of wastewater recycled with respect to wastewater treated from 7.6% to 10.2%</td>
</tr>
<tr>
<td>2014-2016</td>
<td>Reduction in percentage of wastewater treated and discharged to sea water with respect to wastewater collected from 80.9% to 69.8%</td>
</tr>
</tbody>
</table>
Indicator (6.3.2):
“Proportion of Bodies of Water with Good Ambient Water Quality"

Shallow groundwater reservoirs are the only case that applies to Kingdom of Bahrain

2006-2016
Alat Aquifer ➔
Stable electrical conductivity values + Simple fluctuation in logarithmic scale values + Slight improvement of sodium and chloride concentrations

2006-2016
Khobar Aquifer ➔
Slight improvement in electrical conductivity values + Normal logarithmic scale values + Gradual improvement of sodium and chloride concentrations
Target (6.4): “By 2030, Substantially Increase Water-Use Efficiency Across All Sectors and Ensure Sustainable Withdrawals and Supply of Freshwater to Address Water Scarcity and Substantially Reduce the Number of People Suffering from Water Scarcity”

Indicator (6.4.1): “Change in Water-Use Efficiency Over Time”

Indicator (6.4.2): “Level of Water Stress: Freshwater Withdrawal as a Proportion of Available Freshwater Resources”
**Indicator (6.4.1): “Change in Water-Use Efficiency Over Time”**

- **2000-2016**
  - Average water-use efficiency in agriculture sector is about 0.39 Dollars per cubic meter, which is very low.
  - Average water-use efficiency in industrial sector is about 716.78 Dollars per cubic meter, which is reasonable.
  - Average water-use efficiency in services sector is about 56.02 Dollars per cubic meter, which is unstable.
  - Overall average efficiency around 63.34 Dollars per cubic meter, which exceeds the global average efficiency level.

**Indicator (6.4.2): “Level of Water Stress: Freshwater Withdrawal as a Proportion of Available Freshwater Resources”**

- **2000-2016**
  - Reduction in water stress level from 195% to 174%.
  - Reduction in water stress level from 100% to 96%.
  - Bahrain is ranked as severe water scarcity countries in global water stress scale.
Target 6.5 By 2030, “Implement Integrated Water Resources Management at All Levels, Including Through Transboundary Cooperation as Appropriate”

Indicator (6.5.1): “Degree of Integrated Water Resources Management Implementation (0-100)”

In 2017:
Degree of Integrated Water Resources Management Implementation = 40 degrees
Which falls in medium to low level

Indicator (6.5.2): “Proportion of Transboundary Basin Area with an Operational Arrangement for Water Cooperation”

There is no arrangements for transboundary water cooperation
Target (6.6): “By 2020, Protect and Restore Water-Related Ecosystems, Including Mountains, Forests, Wetlands, Rivers, Aquifers and Lakes”

Indicator (6.6.1): “Change in the Extent of Water-Related Ecosystems over Time”

2016-2010
Raise in groundwater levels in Alat Aquifer from -0.86 to -0.12
Target value is 1.7 meters

Raise in groundwater levels in Khobar Aquifer is from -1.52 to -0.72
Target value is 1.5 meters
Target (6.a): “By 2030, Expand International Cooperation and Capacity-Building Support to Developing Countries in Water- and Sanitation-Related Activities and Programmes, Including Water Harvesting, Desalination, Water Efficiency, Wastewater Treatment, Recycling and Reuse Technologies”


Lack of support opportunities receiving, due to Bahrain's economic level

Water supply and sanitation services related projects were supported with about 10 billion USD
Target 6.b “Support and Strengthen the Participation of Local Communities in Improving Water and Sanitation Management”

Indicator (6.b.1): “Proportion of Local Administrative Units with Established and Operational Policies and Procedures for Participation of Local Communities in Water and Sanitation Management"

No local administrative units responsible for water, which within its programs and laws possess policies, arrangements and procedures based on participatory approach concept principles that ensures local communities participation.
Indicator (6.6.1)

- Ecosystem categories that SCE could contribute with by giving data is vegetated wetlands (marshes, forest marshes, and mangrove environments).

- This indicator depends on 4 sub-indicators which are; spatial extent of water-related ecosystems, water quantity and quality in these ecosystems as well as their health (state).

- Establishing a database from SCEs’ data on ecosystems is important to start with as well as working on developing a plan to provide all necessary index data in order to document the Kingdom of Bahrain's efforts.

- An urgent need for ecosystems periodic reports to be shared with researchers and to be uploaded in SCEs' website.