Dear Friends,

This month we shall discuss the sixth Sustainable Development Goal: Clean Water and Sanitation.

In this blog, we shall try to explain:

A. What it is and why is this relevant
B. What are its indicators and targets?
C. Where do we stand in India?
D. What can we do to support the goal?

As stated earlier, I have little to contribute on my own. I have attempted to provide a few references, so that if anyone is interested in probing deeper, you could do so.

A. What is SDG 6 and why is this relevant [1]

The SDG 6 aims at ensuring ‘access to safe water sources and sanitation for all’. Here are some facts [1] related to this goal as of 2019:

a) 1 in 4 health care facilities lacks basic water services
b) 3 in 10 people lack access to safely managed drinking water services and 6 in 10 people lack access to safely managed sanitation facilities.
c) At least 892 million people continue to practice open defecation.
d) Women and girls are responsible for water collection in 80 per cent of households without access to water on premises.
e) Between 1990 and 2015, the proportion of the global population using an improved drinking water source has increased from 76 per cent to 90 per cent
f) Water scarcity affects more than 40 per cent of the global population and is projected to rise. Over 1.7 billion people are currently living in river basins where water use exceeds recharge.
g) 2.4 billion people lack access to basic sanitation services, such as toilets or latrines
h) More than 80 per cent of wastewater resulting from human activities is discharged into rivers or sea without any pollution removal
i) Each day, nearly 1,000 children die due to preventable water and sanitation-related diarrheal diseases
j) Approximately 70 per cent of all water abstracted from rivers, lakes and aquifers is used for irrigation
**B. What are its indicators and targets? [1]**

The indicators for this goal are:

a) Population using at least basic drinking water services (%)
b) Population using at least basic sanitation services (%)
c) Freshwater withdrawal as % total renewable water resources
d) Imported groundwater depletion (m³/year/capita)
e) Anthropogenic (man-made) wastewater that receives treatment (%)

The following is a list of the targets for this goal.

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

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

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

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

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

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

6.B Support and strengthen the participation of local communities in improving water and sanitation management
C. Where do we stand in India?

The following images offer some national as well as global status on SDG 6 Clean Water and Sanitation [4].

No part of the globe has achieved this goal, but all countries in South Asia (including India), the Middle East and most of Africa face major challenges.

The following table shows India’s performance on the five indicators for SDG 6 in 2019 [5]:

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population using at least basic drinking water services (%)</td>
<td>87.6</td>
</tr>
<tr>
<td>Population using at least basic sanitation services (%)</td>
<td>44.2</td>
</tr>
<tr>
<td>Freshwater withdrawal as % total renewable water resources</td>
<td>44.5</td>
</tr>
<tr>
<td>Imported groundwater depletion (m³/year/capita)</td>
<td>0.2</td>
</tr>
<tr>
<td>Anthropogenic wastewater that receives treatment (%)</td>
<td>2.2</td>
</tr>
</tbody>
</table>

In India, only 2.2% of all wastewater generated by humans are treated and only 44.2% of the population have access to the least basic sanitation facilities.

In the following graph we offer a comparison of SAARC nations, 3 ASEAN countries and UK, and USA on the performance on SDG 6. India is ahead of Pakistan and Afghanistan only on this count. Some of the key indicators are: Proportion of population using safely managed
drinking water services, safely managed sanitation services and hand-washing facility with soap and water, proportion of domestic and industrial wastewater flows safely treated, proportion of bodies of water with good ambient water quality and level of water stress: freshwater withdrawal as a proportion of available freshwater resources.

If we look at the indicators level, the comparison is shown below:

<table>
<thead>
<tr>
<th>Country</th>
<th>Population using at least basic drinking water services (%)</th>
<th>Dashboard Color</th>
<th>Population using at least basic sanitation services (%)</th>
<th>Dashboard Color</th>
<th>Freshwater withdrawal as % total renewable water resources</th>
<th>Dashboard Color</th>
<th>Imported groundwater depletion (m3/year/capita)</th>
<th>Dashboard Color</th>
<th>Anthropogenic wastewater that receives treatment (%)</th>
<th>Dashboard Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>62.98</td>
<td>red</td>
<td>39.22</td>
<td>red</td>
<td>43.67</td>
<td>yellow</td>
<td>16.40</td>
<td>orange</td>
<td>0.00</td>
<td>red</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>97.33</td>
<td>yellow</td>
<td>46.92</td>
<td>red</td>
<td>3.79</td>
<td>green</td>
<td>4.07</td>
<td>green</td>
<td>0.00</td>
<td>red</td>
</tr>
<tr>
<td>Bhutan</td>
<td>97.56</td>
<td>yellow</td>
<td>62.87</td>
<td>red</td>
<td>0.56</td>
<td>green</td>
<td>15.75</td>
<td>orange</td>
<td>0.00</td>
<td>red</td>
</tr>
<tr>
<td>India</td>
<td>87.56</td>
<td>orange</td>
<td>44.15</td>
<td>red</td>
<td>44.53</td>
<td>yellow</td>
<td>0.16</td>
<td>green</td>
<td>2.25</td>
<td>red</td>
</tr>
<tr>
<td>Mauritius</td>
<td>99.87</td>
<td>green</td>
<td>93.15</td>
<td>yellow</td>
<td>26.35</td>
<td>yellow</td>
<td>42.41</td>
<td>red</td>
<td>8.40</td>
<td>red</td>
</tr>
<tr>
<td>Nepal</td>
<td>87.75</td>
<td>orange</td>
<td>46.13</td>
<td>red</td>
<td>5.86</td>
<td>green</td>
<td>2.36</td>
<td>green</td>
<td>0.00</td>
<td>red</td>
</tr>
<tr>
<td>Pakistan</td>
<td>88.55</td>
<td>orange</td>
<td>58.25</td>
<td>red</td>
<td>102.50</td>
<td>red</td>
<td>1.44</td>
<td>green</td>
<td>0.10</td>
<td>red</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>92.31</td>
<td>yellow</td>
<td>94.21</td>
<td>yellow</td>
<td>34.08</td>
<td>yellow</td>
<td>11.59</td>
<td>yellow</td>
<td>0.00</td>
<td>red</td>
</tr>
<tr>
<td>Indonesia</td>
<td>89.52</td>
<td>yellow</td>
<td>67.89</td>
<td>red</td>
<td>9.24</td>
<td>green</td>
<td>1.52</td>
<td>green</td>
<td>0.03</td>
<td>red</td>
</tr>
<tr>
<td>Malaysia</td>
<td>96.43</td>
<td>yellow</td>
<td>99.57</td>
<td>green</td>
<td>3.41</td>
<td>green</td>
<td>13.55</td>
<td>orange</td>
<td>19.59</td>
<td>orange</td>
</tr>
<tr>
<td>Thailand</td>
<td>98.23</td>
<td>green</td>
<td>95.01</td>
<td>green</td>
<td>17.49</td>
<td>green</td>
<td>2.89</td>
<td>green</td>
<td>12.07</td>
<td>green</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>100.00</td>
<td>green</td>
<td>99.11</td>
<td>green</td>
<td>9.67</td>
<td>green</td>
<td>9.41</td>
<td>yellow</td>
<td>98.35</td>
<td>green</td>
</tr>
<tr>
<td>United States</td>
<td>99.20</td>
<td>green</td>
<td>99.97</td>
<td>green</td>
<td>22.61</td>
<td>green</td>
<td>5.46</td>
<td>yellow</td>
<td>50.44</td>
<td>green</td>
</tr>
<tr>
<td>China</td>
<td>95.82</td>
<td>yellow</td>
<td>75.04</td>
<td>orange</td>
<td>29.38</td>
<td>yellow</td>
<td>1.57</td>
<td>green</td>
<td>16.13</td>
<td>orange</td>
</tr>
</tbody>
</table>


D. What can we do to support the goal? [2, 3]

At the individual level, we can try to raise the awareness among communities used to open defecation practices. Toilets built under the Swachh Bharat programme in rural areas remain unused in some cases. Raising awareness of the evils of open defecation is essential. Similarly, it is important to raise awareness among relatively rich households about the need for
conserving water. Adoption of rain water harvesting on a larger scale by individual households can be a good solution.

The UN Report [1] suggests the following:

“Generating awareness of the roles of women, youth and indigenous communities in water resources governance, and turning them into action will lead to win-win results and increased sustainability and integrity for both human and ecological systems.

“You can also get involved in the World Water Day and World Toilet Day [6] campaigns that aim to provide information and inspiration to take action on hygiene issues”.

It is apparent that India fairs poorly on two counts: treatment of wastewater and basic sanitation facilities. In this context, two national programs: Namami Gange and Swachh Bharat comes to mind.

Namami Gange - National Mission for Clean Ganga (NMCG) [2] was registered as a society on 12th August 2011 under the Societies Registration Act 1860. It is the implementation arm of National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council). The Act envisages five tier structure at national, state and district level to take measures for prevention, control and abatement of environmental pollution in river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga as below:

1. National Ganga Council under chairmanship of Hon’ble Prime Minister of India.
2. Empowered Task Force (ETF) on river Ganga under chairmanship of Hon’ble Union Minister of Jal Shakti (Department of Water Resources, River Development and Ganga Rejuvenation).
4. State Ganga Committees and
5. District Ganga Committees in every specified district abutting river Ganga and its tributaries in the states.

Here is an info graphics [3] on the status of making India Open Defecation Free:
There is a contradiction between the above data showing 91 to 100% households having toilets, while the SDG report claims that only 44.15% of population having basic sanitation services. The SDG Report defines this indicator as ‘The percentage of the population using an at least basic sanitation service, that is, an improved sanitation facility that is not shared with other households. Source: JMP (2019). Year of reference: 2015 (or closest available)’. Perhaps the year of reference needs updating. Some more details of this indicator [6] is:

“What does ‘safely managed sanitation’ mean?
“When someone has a ‘safely managed sanitation service’, it means they use hygienic toilet facilities that are not shared with other households and where excreta are either separated from human contact and safely disposed of in situ or transported and treated off-site, thereby protecting people and the environment from disease agents. Examples include flush/pour flush toilets connected to piped sewer systems, septic tanks or latrine pits; ventilated improved pit latrines; composting toilets; or, pit latrines with slab covers.”

References

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4. SDG Index Dashboard
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5. India_SDR_2019.pdf downloaded from:
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