



Sustainable Action Dialogue: Kolkata

A World Sustainable Development Summit 2020 Regional Dialogue

On

Water Secure Economies: Perspectives from the Industries

Background Note

India along with other countries in September 2015 signed the declaration on the 2030 Agenda for Sustainable Development at the Sustainable Development Summit of the United Nations. This is a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. The declaration comprises of 17 Sustainable Development Goals (SDGs) which are universal, interdependent and mutually reinforcing (and sometimes conflicting). It is recognized that achieving the 2030 Agenda for Sustainable Development and its 17 Goals and 169 targets will only be possible through an integrated approach working across sectors, ministries and different administrative levels and geographical scales.

The SDG 6 deals with the aspects of water availability, access and use. This goal calls upon all nations to “Ensure availability and sustainable management of water and sanitation for all”. It places water and sanitation at the core of sustainable development agenda, cutting across sectors and regions. The linkages between water and sustainable development are numerous, complex, and often subtle. Water not only has a basic function in maintaining the integrity of the natural environment but is also a key driver of economic and social development. Hence it is important to understand the role of water in various sectors especially in industries where it is comparatively easier to adopt interventions for enhancing water use efficiency.

Industrial water demand has been increasing with the pace of industrial development in India and is expected to increase many folds by 2050 (NCIWRD). The growth in some of the water intensive industries like Thermal Power Plants, heavy engineering industries, textile industries, pulp & paper industries, steel industries, etc. has been quite significant, putting further pressure on the industrial

demand for water. The future demand for water by industries will inevitably put pressure on the available freshwater resources, both due to water consumption and water pollution. Also, as compared to international standards, Indian industries consume relatively higher amount of water for production. Therefore, there exists huge scope for improving water usage in the industrial sector. This would require industries to optimise their water use practices ensuring efficient water use; undertake water conservation, recycle and reuse.

Given the situation, the conscience for efficient water management needs to take a centre-stage in business planning by the corporates. The contemporary approach of typical 'end-of-pipe' treatment of industrial wastewater need to shift towards decentralized, process integrated water management with efforts towards 'zero discharge' or 'positive water balance', thus reducing the fresh water consumption as well as pollution. This will also help industries to pave the way to ensure business sustainability and profitability.

From the perspective of pollution, the major pollution in terms of organic load is generated from distilleries followed by paper mills. Chemical pollution is also generated by industries, for example pharmaceuticals, rayon fibres, chemicals, caustic soda, soap and detergents, etc. Alongside chemical pollution, plastic waste is considered as one of the most serious environmental problems today. The fact that every year around 8 million metric tonnes of plastic waste being dumped into the ocean has an adverse impact on river and coastal ecosystem due to its non-biodegradability. A report by the Infrastructure Development Finance Company states that the water use in Indian industry is very high because of a combination of factors that include "obsolete process technology, poor recycling and reuse practices and poor wastewater treatment". The report also mentioned that the very low level of awareness about the water and wastewater problem exacerbates the issue.

A recent example of 2016, where few units of Farakka thermal power plant in West Bengal was shut down due to low level of water in the Farakka canal, highlights the need for industries to understand the value of water and conserve it in the best possible way. While in many cases, industries have also led the way to improve water management in the region like Pandesara Industrial Estate in Surat and the power utility of Maharashtra-MAHAGENCO who are using treated wastewater from municipal corporation/utility for fulfilling their water needs.

Hence, water scarcity and pollution pose a significant risk to an industry by threatening their supply chains, production capacity and operations. Given that there are a large number of threats posed by water scarcity, this platform will try to focus on the interventions that industries have undertaken to reduce water use and curb pollution.

Focusing on the role that industries have on water management the discussion will be centered on the following questions:

1. What are the interventions required to enhance water use efficiency and reduce Specific Water Consumption within the industries?
2. What are the measures/best practices adopted by industry to improve water management and help achieve SDGs?
3. What are the key policy interventions required to ensure sustainable business in the Indian context?