

World Water Day, 2017 - Why Wastewater?

on 20th March, 2017 at PCRWR, Headquarters, Islamabad

Concept Note

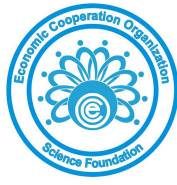
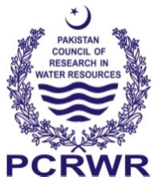
1. Background

Each year, World Water Day highlights a specific aspect of water. Under the theme 'Wastewater', the year 2017 provides an important opportunity to consolidate and build upon the previous World Water Days to highlight the two-way relationship between water and the decent work agenda in the quest for sustainable development.

Water is a fundamental necessity for sustaining human life and is essential for survival and development of living beings and healthy ecosystem. Although water is the most abundant resource found on the surface of the earth, but 97.5% of that water is either saline or not accessible, only 2.5% makes up freshwater. Freshwater is naturally occurring resource on the earth in the form of glaciers, ice sheets, icebergs, aquifers, lakes, ponds, rivers and streams having low concentration of salts and total dissolved solids. Of the freshwater resources, less than 1% is readily available and clean for multiple uses including irrigation and ecosystem maintenance, but not necessarily safe for human consumption.

Safe water is though a life sustaining fluid, unsafe water can equally be fatal. Over large parts of the developing world, people have limited access to safe drinking water and are bound to consume unsafe or contaminated water. Almost all sources of drinking water are subject to contamination, which may occur both in the water-source and in the distribution system. There are many causes of water contamination, including human and animal excreta, naturally occurring chemicals and minerals such as arsenic, lead, mercury, and those coming from land use practices such as fertilizers, pesticides, and insecticides, and those originating from sewer flows and wastewater releases.

Wastewater is one of the major water challenges faced by Pakistan particularly near the urban areas. Presently, most of the wastewater is discharged untreated into drains, streams and rivers, which deteriorate the water quality. It is many times reported that untreated effluents from industries and sewerage reduces the Dissolved Oxygen (DO) level and increases Biological Oxygen Demand (BOD) and Total Dissolved Solids (TDS), besides containing toxic chemicals. Those toxic chemicals reach the humans through drinking water and food. It has been estimated that in Pakistan about 2.5 MAF of municipal and 1.5 MAF of industrial waste water is generated annually and only 3% of that is claimed treated, while the rest is disposed as such into the water bodies. About 30,000 hectares of land is irrigated with wastewater and 25% vegetables consumed in the country are produced through wastewater irrigation. The destinations of contaminants



from all these origins are water bodies, which ultimately enter into blood stream of humans through food and drinking water thereby causing multiple diseases.

The presence of contaminants in water lead to multiple adverse health effects causing diseases such as cholera, typhoid, diarrhea, dysentery, hepatitis (A&E), arseniosis, lead poisoning, fluorosis, Acute Respiratory Infection (ARI), and gastroenteritis, to name but a few. Waterborne diseases are taking toll on the health of Pakistanis reducing DALYs (disability adjusted life years) and life expectancy as well as financial economy. At the individual level, it involves costs for medical consultation, medication, visits to hospital, precautionary food, loss of working hours, and reduced literacy due to loss of children school days owing to ill health and morbidity. Sometime the poor families are compelled to sell their assets and households for meeting the treatment costs, and the resultant increase in hardship and miseries of the people. It is estimated that on average 10% of household income is spent on treatment of infected persons.

Water quantity and quality are intricately interlinked. Pakistan, once water surplus country, has now become water scarce country with per capita per annum water availability of about 1000 m³. That has direct impact on overall water quality and ultimately on potable water quality. Unsafe water and hygiene practices are responsible for vast majority of diarrheal diseases. In Pakistan, about 250,000 children die each year of such diseases. The overall burden of water-borne diseases on the national exchequer of Pakistan is about Rs 120 billion per annum and contaminated water is the major cause. It is further estimated that water related diseases cause annual national income losses of USD 380 to 883 million – or approximately 0.6 to 1.44 percent of GDP. Therefore, proper management of wastewater is of utmost concern especially when population of Pakistan is expected to be double in year 2050, generating almost the double wastewater than being generated today.

Pakistan Council of Research in Water Resources (PCRWR) along with its supporting partners (Metropolitan Corporation Islamabad, ECO Science Foundation, ICIMOD, Riphah International University, UNESCO Water Chair, IUCN and LEAD) has planned to convene World Water Day on March 20, 2017. The event will provide a platform for exchange of experiences and dialogue to address wastewater management.

2. Objectives

The intended objectives of the event are:

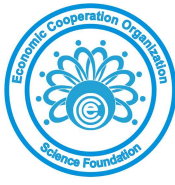
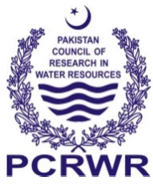
- Knowledge sharing and skill enhancement on wastewater management.
- Sensitization on wastewater management as an untapped resource

3. Intended Participants

Around 80 participants will be invited from among decision-makers, water experts, students, local governments, institutions, community members and youth etc. The participants will be invited in consultation with the collaborating partners.

4. Program

Time	Activity	Presenter/Guest
0930 –1000	Registration	PCRWR Headquarters
INAUGURAL SESSION		
1000 – 1005	Recitation of Holy Quran	Verses Related to Water
1005 – 1015	Welcome remarks	Dr. Muhammad Ashraf, Chairman, PCRWR
1015 - 1025	Climate Change and Water Quality	Dr. Ghulam Rasool, DG, PMD
1035 – 1045	Message of Director General ICIMOD	Dr. Abdul Wahid Jasra, Country Representative, ICIMOD
1045 - 1055	Role of UN in wastewater management	Dr. Asma Younus, UNESCO Water Chair,
1055 - 1105	Role of Academia in wastewater management	Mr. Hassan Muhammad Khan, Chancellor, Riphah International University
1105 - 1115	Wastewater situation and improvement options in Pakistan	Ali Tauqeer Sheikh, CEO, LEAD, Pakistan
1115 - 1125	To be provided	Dr. Abdul Majeed, IUCN
11:25 - 1135	Presentation - Wastewater situation in ICT	Dr. Ashfaq Ahmad Sheikh, Director General, PCRWR
1135 - 1150	Presentation - Bioremediation Practices and Prospects in Pakistan	Dr. Yousaf Riaz, NARC
1150 - 1200	Presentation - Bioremediation interventions by NUST	Dr. H.F. Gabriel, Professor, Civil Engineering, NUST
1200 - 1215	Science education for wastewater management	Dr. Manzoor H. Soomro, President, ECO-SF
1215 – 1230	Address by Chief Guest	Sheikh Ansar Aziz, Mayor of Islamabad
1230 - 1300	Group photo and lunch	



5. Partners Role

Sr. No.	Organization	Role
1	PCRWR	Venue, arrangements, dissemination material and coordination
2	ECOSF	Mobilization and dissemination material costs
3	ICIMOD	Refreshments and dissemination material costs
4	Riphah University	Students participation
5	LEAD, Pakistan	Professionals participation
6	MCI	Local participation
7	IUCN	Professional participation