**The Water Pollution Dilemma**

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The issue of water pollution has become adverse in Pakistan. It is only intensifying with each passing day. According to the United Nation International Children Emergency Fund (UNICEF), 20 to 40 per cent of hospital beds in Pakistan are filled with patients suffering from waterborne diseases. Moreover, Pakistan has a horrifying rate of infant mortality caused by water-related diarrhoea: a staggering 60 per cent. This is the highest ratio in Asia, as per the report of the International Union on Conservation of Nature (IUCN).

There are multiple sources of water pollution in Pakistan. The industrial sector constitutes one of the biggest chunks of water pollution sources. Several factories release their effluents without prior treatment into the freshwater body sources The wastewater from industries contains hazardous pollutants in greater amounts, such as heavy metals, toxic chemicals, radioactive waste and organic pollutants. The main water pollution contributor industries in Pakistan are petrochemicals, tanneries, refineries, textile and sugar industries, paper and pulp, food processing. As per a special report by WWF on water pollution in Pakistan, Environmental audits are conducted by only a marginal number of industries (about five per cent of national industries). The textile and sugar industries are major sources of industrial water pollution. The problem of industrial water pollution has remained uncontrolled because there have been little or no incentives for industries to treat their effluents. The role of provincial environmental protection agencies (EPAs) in combatting this issue effectively is not adequate.

Another big source of water pollution is the agriculture sector. Agriculture is the main contributor to the country’s annual GDP. However, this sector also lacks good planning and management regarding the prevention of water losses and pollution. The fertilisers and pesticides used in the crops leach directly into natural water bodies, which deteriorates the quality of freshwater. Most pesticides are classified as persistent organic pollutants that accumulate in plants, animals and humans–a phenomenon known as bioaccumulation. Pesticides are severely toxic pollutants that can cause cancer, neurotoxicity, hormonal and blood disorders, birth defects, developmental problems and other health issues.

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Domestic wastewater is another constituent of water pollution sources. The untreated sewage flowing through nullahs and stormwater drainage ends up in the streams, lakes and rivers. The municipal wastewater causes microbial diseases. More than 2,000 million gallons of sewage is being discharged to surface water bodies every day, according to the reports of Pak-SCEA. The polluted water leaches into the groundwater aquifers, thereby reducing the quality of groundwater. Hardly 10 per cent of the sewage is treated in cities across the country. There is a dearth of wastewater treatment facilities in the urban centres of the country. The existing municipal wastewater treatment units are either under-resourced or not working effectively due to technical constraints. Adding to the plight of citizens, there is also a lack of adequate disinfection facilities and quality monitoring units.

It is a dilemma that only 20 per cent of the country’s population has access to clean drinking water. The remaining 80 per cent of the population is forced to consume unhealthy, contaminated water for drinking and other domestic purposes. The consequences of this situation manifest by the fact that approximately 80% of all diseases and 30% of deaths are related to water pollution. The health issues and human losses subsequently lead to economic losses for the country.

It is high time that the government brings out effective policies and concrete implementation to arrest the issue. Access to clean water is a basic human right and a fundamental part of public service delivery. Clean Water and sanitation is Sustainable Development Goal 6, whose fulfilment is promised by the government of Pakistan. Therefore, measures such as the establishment of wastewater collection and treatment facilities for industrial, agriculture and municipal sources should be done in each province. Disinfection units and quality monitoring agencies need to be developed. Moreover, environmental audits of industries should be carried out with strict compliance requirements to bring positive change in this scenario. There is also a greater need for aggressive implementation of the 2018 National Water Policy. It remains an undeniable fact that only through concerted efforts by governmental agencies, the issue of water pollution in our country can be resolved.

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