



The Consequences of Exploited Environmental Surroundings on Public Health of Southern Water scarce and Air Quality Stressed Regions of Pakistan–A Review

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Abstract

This review High lightening the impacts of Degraded Environmental health on Public of Pakistan with the increasing stress on biosphere in mean of urbanization and industrialization. This Review also figures out the trends of Water consumption, deterioration of Water Quality and its adverse impacts in Adults and infants in different provinces of Pakistan as well as Air pollution impacts on different factors of Healthy life. The review also aims to investigate the public health environment of Pakistan and propose the recommendations and meditative measures to the problems to continue the SDGs commitment agenda to the future generation.

Keywords: Urbanization; Deterioration of water quality; Consumption; Adverse impacts; Remediation; SDGS commitment; Future Generation

Introduction

Pakistan is an independent country which is located in South Asia, partitioning to India, Afghanistan, China, and Iran. Having land area of 880,000km². It Coastline Confines the Arabian Sea about 1406km. The well-known geographic features are Indus river, Hindu Khash, Karakoram Himalayan Mountains whereas, some of their peaks exceed to 8000m in height [1]. Being an Agro-cultivate country, its highly depending upon the utilization of Environmental Resources. Due to lack of hi-tech and green technologies Pakistan is also facing many Environmental tragedies. Most common one is Air pollution and Ground Water pollution. After the era of industrialization, the release of effluents in soil and in nearby water bodies the freshwater resources which is present only 3% on earth surface is highly deteriorated by organic and inorganic chemicals. To meet the basic needs of increasing population the agriculture practices also influencing the ground water by use of pesticides. The poor municipal sewage system also embedded the cause of lowering ground water quality. Different localities of Pakistan are relaying on ground water consumption for their domestic and agriculture practices. Exposure to such situation 80% of population utilizing the low-quality water while 20% population

have access to safe drinking water due to which 2.5 million death occur per year due to diarrheal diseases (UNESCO 2002.). The use of polluted water for drinking purposes leads to the rise of water borne diseases such typhoid, diarrhea, cholera, hepatitis and other defects of human health among the poor communities of Pakistan [2]. The aquifers of Pakistan about 84 to 89% are ineligible to fulfill the water quality standards (DAWN 2016). The hospitals of Pakistan include 20-40% patients suffering from water borne diseases. Pattern of Air pollution is also threatening the life on territorial level. In rural communities of Pakistan biomass and fuel combustion is used for cooking and heat energy purposes. The open air burning of solid waste add more concentration in gases which plays a toxic role to human health. These exposure to poor indoor air quality causes 28,000 deaths per year whereas 40 million public having symptoms of pulmonary diseases such pneumonia, lungs infections are common in Pakistan. It also causes cardiovascular & optic diseases among those people who are exposed to indoor air [3]. Metropolitan cities of Pakistan has been reported with highest level of poor air quality which exceeds more than National Quality standards parameters for Air [4]. Heat stroke and smog are

the tragic events which causes deaths and rise of many diseases in Lahore and Karachi. From the studies it has been estimated that every year 135,000 people die from air pollution in different regions of Pakistan. Marking these factors of toxicants in air the Pakistan has marked on fourth number in air pollution statistics [5]. However, every problem has their own solution when those plans are carried out on large scale. For this effectively implementation of solutions and plans, Pakistan ministering, and legislative bodies have to regulate the monitoring, policy efficiently implementing and management organizations on regular basis under the supervision of their relative experts and specialists.

Regional-wise Consequences

Balochistan

Balochistan is the largest province of Pakistan in land wise. The native people are consuming underground water for their domestic use. The underground water due many factors are deteriorated and unable for drinking but due to lack of technologies water is still consume by underprivileged people. The diseases are piling up by utilizing of contaminated water such as typhoid, diarrhea, chikungunya, intestinal worms and hepatitis. The water borne diseases such as chikungunya had 28 positive results in samples collected from Gawader city in April 2017 WHO [6]. Typhoid had been suspected in 192 samples in which age ranging from 11 to 20 years were more affected from the studies of 2011 carried out by Bolan medical college in Quetta city [7], while 82% of diarrheal cases are reported in adults which are compelled to use contaminated water Water Delta Atlas [8]. The Air pollution was also been analyzed in Quetta city the consequences of air pollution on health of people includes headache, blood pressure, eye fatigue and respiratory problems whereas the ratio of such consequences are still not confined in figures.

Sindh

Sindh counted as the largest populous city with 14.91 million population. But due to lack of basic necessities of life such as food, safe drinking water, and education in most of localities people suffering from severe diseases. They are also vulnerable to anthropogenic hazardous events such as heat stroke, dust pollution and oceanic cyclones near to the coastal areas. The early marriages also plays an important role in pre-mature death of infants or to bring the whole life time deformities in children's. Unawareness towards the consumption of unfit water for the adults and infants give call to many death angels diseases. In 2018 most of coastal areas were reported by 30-35% of hepatitis cases whereas 20-25% affected by viral diseases and 2088 cases were suffering from dengue fever WDHD [9]. Karachi was strike by heat wave in 2015 and become a cause of death of 1200 lives [10]. Air pollution Creates many problems to healthy life as human being are compelled to the breathing and exposed to the heavy particles present in air. Nearly 20% of acute lower respiratory infections (ALRI) mortality among children under five years of age, 24% mortality caused by cardiac

failure, and 41% cases reported to the lungs carcinogenic disease About 12% children deaths occurred and 88% are among adult in Sindh each year (Mortality rate 2002.).

Contamination Sources

Balochistan

Balochistan is rich in minerals but lack the basic necessity of life and are consider as water scar Region. The ground water recharge is highly dependent on level of precipitation received annually whereas, some regions of Balochistan are deprived from seasonal monsoon rainfall. The drastic changes in climate influencing the water availability in Balochistan. In this deprived situation, the stakeholders are utilizing the wastewater for the growth of many vegetable crops that are adversely affecting the health of endemic people. Poor sanitation management is also responsible for addressing the rise of many waters borne diseases. The mismanagement in well drilling, poor quality pipelines use which are eroded with passage of time and old traditional practices highly attributes to the susceptibility of vulnerable Diseases by contaminated Water [11].

Sindh

Except some counties of Sindh, largest regions of Sindh are impoverished. Its native highly dependent on surface water resources for their daily use holdings in provision of Indus river flow from the northern areas of Pakistan. But some regions of Sindh are water scarce areas and are deprived from the freshwater resources and are reliant on aquifers. As Sindh lies in semi-arid climatic zone and due to high temperature, less annual receiving precipitation and insufficient management of water resources large part of water is loss in evapotranspiration while remaining part is Detroitied by local waste dumping and saline water encroachment from the ocean [12]. Air pollution is advocated by widespread of reduction in Green-lands to urban areas, industrial and factories emissions and use of vehicles apart from that plantations of such trees that trap heat. All these factors address the negative impact on local population in which un-lavish public are more vulnerable to the disaster [13-18].

Remediation

Words are worthless when exertion are flows underneath the dialogues. Each diminution measures depends on when, where and how steps would be taken for successful operational results. For this following's restitutions are coded but actions must be taken before we are too late to reduce the further impacts.

- a) The adaptation of cost-efficient technologies have to be bring in country in order to reduce the water pollution and air pollution
- b) The legislative bodies have to be synergetic to order the management organization to induce the environmental quality standards in their management practices.

- c) The less water required trees shall be planted in air polluted areas.
- d) Behavioral changes workshops shall be carried out in local regions of Pakistan where community shall be practiced through series to protect environment.
- e) Initiatives and funding shall be provided to community based environmental management bodies to effectively involve the public.
- f) Each project shall have EIA/IEE report before going to implementation of the project.
- g) The sewage and municipal system and irrigation practices shall be monitored on regular basis. The annually budget have to be imposed for advance requirements in practices.
- h) The basic health facilities and care centers shall be established in each district and local regions. The prevention injections shall be injected to children before the arrival of any seasonal diseases.
- i) The legislative bodies shall impose the fines and take strict actions against the convicted bodies.
- j) The formulated policies, strategies and rectified protocols should be implemented and regulated under the supervision of expertise.

these simple steps will save the cost and lives of million people of underprivileged areas.

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Conclusion

The current state of Pakistan environmental problems needs to be solved on immediate call. The adopted technologies, initiatives shall be provided to poor communities for their efficient use of household apart from relying on environmental resources. All types of environmental pollution need attention as they are responsible for severe diseases in among public health of Pakistan. The data which has been collected from different studies are still not efficient enough to highlight the severity of water and air pollution. Pakistan government shall provide facilities to the researchers to collect data from far remote areas of Pakistan where public is still out of concern of media eyes. The interventions of strategies policies shall be made in presences of expertise and public engagement shall be the priority in decision making procedures. A thousand-mile journey begins with single step in that case by taking



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