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India, Water & Sanitation

Water Scarcity & Lack of Sanitation In India

India encounters a massive water deficiency causing dehydration to residents of all ages and genders. Coupled with overpopulation and lack of resources, this issue is of utmost importance to the despair happening in different religious communes. As of 2024, about 35 million Indians have a water shortage, and 678 million residents have reduced sanitation (The Water Crisis In India, 2024). Thus, the lack of water resources and sanitation won't let communities survive and adapt to a rapid population rate in India.

Domestic water is difficult to maintain, resulting in a shortage of water levels and a lack of sanitation with the addition of severe climate change. The dangers of water insufficiency and unsafe sanitation in Indian communities is the spread of water contamination, which would lead to public health problems, air quality, and hygiene substantially causing 200,00 deaths each year (Chaudhary, 2024). The total water demand is scarce, whereas 65% of the Indian population is rural and elevated by urbanization gradually increasing (Rathore, 2024). Water scarcity and sanitation challenges, and an environmental impact for which will need a solution and a change.

India's population corresponds to 1,450,935.79 billion people and counting, estimated that overpopulation in India to 1.7 billion by 2060 (United Nations, 2024). In India, the country rurals about 65% of India's population from being sustainable among agriculture (Biswas, 2020). Hence, in India, the people make their living from agriculture, services, and construction being adapted in rural areas. Indian communities can live in rural areas and work or survive from agriculture, and any job services. (Average Salary in India - A Comprehensive Analysis, 2023).

India is a central government, with elected officials at the union, state, and local levels. Thus, India is a Sovereign Democratic Republic with different state governments (Allchins and Calkins, 2024). India's cultivated land is currently about 179.8 million hectares which is a large agricultural rural area, needed for water and environmental resources (Ply Insight, 2023). The major common crops and exports are rice, wheat, sugarcane, oil seeds, and cotton. The average farm size of India is around 1.08 hectares which is equivalent to 2 football fields and a half.

In India, the climate is a tropical monsoon in different states because of the country's peculiar position in the Asian continent and the Indian Ocean. In India's subcontinent, the temperature that rises from hot summer months in New Delhi increases to a record high of 127.22 degrees Fahrenheit which impacts the infrequency of securing water (Dayal, 2024). India's climate can also have mild winters due to the winds in Central Asia, such as the Himalayas around 59 degrees in Fahrenheit (Natural Habitat Adventures, 2024).

A typical family size in India ranges to 9 as a family where there are low-rise apartment buildings, houses with high land coverage, and live with dense building material in rural areas. Moreover, urban households consist of an average family of 5 or more people (Rathore, 2024). The number of residents who live in the slum population is 65 million according to the National Institute for transforming India (Mitra, 2023). A typical family diet consists of whole grains, and healthy foods other than non-healthier or fatty foods since some religions don't consume different types of meat. The families in India maintain their nutrition by their farms in an agricultural environment, such as domestic ingredients, while they cook the food using wood chips or sticks in a fireplace area.

Employment in India is becoming warehouse supervisors, laborers, and even a social media specialist. India's average salary is approximately 32,000 Indian Rupees or estimated to 381.45 USD, despite having a poor rural status in 2024 (Time Doctor, 2024). Families and Indian citizens as stated have access to free outpatient and inpatient care in the public of India. Some families who have a stable income have access to education and health care. However, many Indian families don't have enough of the use to be able to cover healthcare or a minimum access to education. Thus, families contract 61.5% on extreme water stress, and even other difficult challenges (Savelli, Mazzoleni, 2023). Major barriers include rising living costs, job insecurity, and lack of career advancements.

The global issue challenges the lives of different religious people in India who live in poverty, lack employment, and have large families, have no access to sanitary water, or live in poor conditions. Therefore, water still declines because of a lack of sanitation through wastewater around 45 billion liters each day as of 2020 (Zandt, 2024). If the trends stay the same but continue to worsen if there is no act of change, India addresses to more residents building an overpopulation. Less access to water affects both rural and urban inhabitants and agricultural production.

The water shortage and lack of sanitation have women and girls vulnerable to their ability to study, and men and the elderly cannot work if there is a decline in their health systems. This impact leads to significant health risks, public health problems, air quality, hygiene, inadequate food and nutrition. The difficulty affects the environment, leads to drought, and unsafe sanitation specifically increases diarrheal and waterborne diseases to both humanity and livestock.

Raising awareness increases a growing concern and emerging methods from AI technology and innovations for water and the poor quality of sanitation. Having an urban waste management system would stabilize the unnecessary pollution and recycling would add an effort of understanding the challenge faced globally. Additionally, women and children can focus more on their perseverance in education rather than the provocation of pacing more than a mile to obtain buckets of water to support their families. Urban wastage management will be able to have a positive effect from handling waste through a vital process from covering collection, transportation, treatment, and disposal methods. This response impacts the importance of cultures and religions because water cleanses and is a symbolic tradition in India. Moreover, a recommendation to support India would be urban waste management to manage the lack of sanitation that there is in India by reducing about 62 million of solid waste which only 31 tons are untreated (NEXT IAS Content Team, 2023).

Strategies and developments manage sanitation in society from recycling, composting, and incineration. Although there can be a limit where there will be more landfills to compose, or unmanageable that can cause problems towards society. A balanced political Government can be recommended in India to introduce a manageable country. For example, there can be regulations and policies for water shortage,

and unsafe sanitation by creating recycled machines, trash cans, or pickup trucks throughout all urban to rural areas which have already improved by 70% that waste being collected throughout the country (Khuller, 2023). A weakness of the solution among public divisions is how this can affect people's workforce, while not having a potential continuation of a regulation created in India between a lower caste, and a higher caste for fresh water rights.

Furthermore, these solutions would be able to meet the needs of India by the government's law, such as UNICEF, originally called the United Nations International Children's Emergency Fund. UNICEF in India can create a fund and take action in clean drinking water where two-thirds of India's 718 districts are affected by extreme water stress (UNICEF India, 2019). Therefore, the government-funded tapping water for India where between August 2019 and May 2022, the program coverage of functional household tap connections in rural areas increased from 17% to 49%. The Jal Jeevan mission funded by UNICEF led to safer water sustainability for 20 million in India (UNICEF WASH programme, 2024).

As a result, management and regulations such as building wells, water sanitation pipes, and the distribution of renewable to clean water. These projects can be funded by the World Bank, civic organizations, and UNICEF WASH program in India supported by India's government efforts because in August 2019 the Prime Minister committed to supply to every household by 2024 (UNICEF, 2024).

In conclusion, the global challenge in India involves developing different projects, organizations, and the government with the role of community members implementing the supportive plan of water conservation, striving to connect to foreign aid with the United States, Europe, Japan, and the United Arab Emirates. This would improve different regional areas in both India and the United States progressing the importance of freshwater and sanitation services. (Nainar, 2024). Policies such as USAID/India partnerships create an action plan of investment, teaching farmers to update their irrigation techniques and rainwater harvesting. Building funds towards organizations, building dams in rural areas in need of freshwater that is scarce, and conserving a positive contribution to sanitary facilities in supporting the need of India's performance of the world's fastest-growing population.

Works Cited

“India’s Water and Sanitation Crisis.” Water.Org, 2024

Chaudhary, Monika. “India’s Thirst for Improved Water Security.” India’s Thirst for Improved Water Security, 26 Feb. 2024

Rathore, Manya. “Topic: Rural Economy of India.” Statista, 18 June 2024

Rathore, Manya. “India: household distribution by size.” Statista, 14 May 2024

Biswas, Soutik. “Why Indians Continue to Live in Joint Families.” BBC News, BBC, 13 Sept. 2020

Allchin, Frank, and Philip Calkins. Encyclopædia Britannica, Encyclopædia Britannica, inc., 29 Aug. 2024

Highest Agricultural Land in World, What Leaks Our Productivity - Ply Insight, 28 Nov. 2023

“India Weather & Climate: Winter & Early Spring.” India Weather & Climate | Winter & Early Spring, 2024

Khuller, Anita. “How Is India Dealing with the Ever Growing Waste Generation?: Rags to Riches? The Urban Waste Management in India Saga.” WMW, WEKA Industrie Medien GmbH, 3 Oct. 2023

“Hunger, Poverty and Disease Stalk India’s Slum Population as Sustainable Development Goals Ignored.” Alliance for Science, 16 May 2023

“Clean Drinking Water.” UNICEF India, Accessed 30 Aug. 2024.

“Know before You Go.” India, 2024

Lindström Group. “Our Long Journey with UNICEF WASH Programme in India Continues for 2024-2026.” Lindström Group, 14 June 2024

Pti. “India’s Population to Peak in Early 2060s to 1.7 Billion before Declining: United Nations.” The Hindu, United Nations , 12 July 2024

Savelli, Elisa, et al. “Urban Water Crisis Driven by Elites’ Unsustainable Consumption.” Nature News, Nature Publishing Group, 10 Apr. 2023

Why Have Temperatures Reached Record Highs in India? | Reuters, Accessed 30 Aug. 2024.

Zandt, Florian, and Felix Richter. “Infographic: How Wash Access in India Has Improved.” Statista Daily Data, 22 May 2024

Doctor, Time. “Salaries in India [Comparison, Outsourcing 2024 Data].” *Time Doctor Blog*, 7 Aug. 2024

