

Access to Water and Sanitation is Not Enough, but their Management to End the Crisis

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Abstract: *Water, Sanitation and Hygiene (WASH) are most important basic services that is required to maintain good health and persistent economic growth of any country. Water is a precious natural resource deserves judicious approach for its use and management. Sanitation and hygiene are very crucial anthropogenic activities that impact a lot on the quality of water being used for potable, domestic and many other purposes. Reports reveal that the effective management of water and sanitation services and better hygiene practices can significantly contribute to the economic progress of the world. However, the crisis of effective management of WASH remains a challenge in the world. This paper provides a scenario of how WASH crisis impacts not only on the health indicators but also on the economic growth of low-middle income countries as well as the approaches that could be applied to address this.*

“Suffering is the true wealth if such imperfect creatures as we are” – Rabindranath Tagore, the first Asian Nobel laureate

I am not surprised, but afraid of the situation and time when water bodies will be guarded by arm forces and creatures will fight each other to get access first to it. This situation will not be far from us if the water and sanitation is not managed comprehensively with an approach of end to end solution.

Today, one in nine people across the world lack access to safe drinking water and one in three persons is deprived of improved sanitation services. On the contrary, the untreated waste generated from existing sanitation coverage pollutes water bodies, making them not only unsafe for potable use but also for the aquatic life and ecosystem required for economic growth of any country.

In a year, around a million people in low and middle-income countries die due to inadequate water, sanitation and hygiene services. The recent diarrheal outbreak in Botswana is an example of how many such countries are witnessing an analogous situation every year. Lack of access to clean water and sanitation, and unhealthy hygiene practices make millions of children vulnerable, threatening their survival, growth and development, which in turn puts the economic growth of any country at risk.

Girls leaving school due to lack of sanitation and menstrual hygiene facilities is a common phenomenon across the world, which stops them from acquiring knowledge and skills to contribute in the economic growth of the family and the country. Adolescent girls are especially affected due to lack of access to clean and private places to manage their menstrual hygiene with privacy and dignity. UNESCO estimated that one in ten girls in Sub-Saharan Africa misses school during their menstrual cycle. Many girls drop out of school when they begin menstruating which accounts for around 23 % of school going girls in the country like India due to lack of sanitation and menstrual hygiene facilities.

Women and girls across rural areas spend hours every day collecting water and thus miss school. The absence of these basic facilities is much more in the marginalized communities. People who were deprived of these services in past decades remain excluded even today and are in a

vicious cycle of diseases and poverty. The world can save around USD 263 billion a year if these basic services are provided to communities in need globally.

The reduction in diarrhea-related diseases alone can save USD 11.6 billion in health treatment costs and can generate around USD 5.6 billion in labor-spending. Asia and Latin America have performed this task significantly over the past decades, but many countries in Africa are far off track in responding to this need.

Blurb 1: The reduction in diarrhea-related diseases alone can save \$11.6 billion in health treatment costs and can generate around \$5.6 billion in labor-spending

It is often assumed -- incorrectly -- that the economic value of a resource, product and service is measured by the market price. However, my argument is that the natural items that are not sold in the market -- like an ecosystem -- have huge economic value.

An ecosystem is the backbone of livelihood and economic growth of any country wherein water and sanitation play a key role, and hence deserve to be considered as economic goods. Even today, people across the globe who can least afford it pay a higher price for drinking water. This is especially true for low-income communities who have to spend a greater proportion of their income on water and sanitation, and are therefore unable to invest required amount in healthy causes and other basic needs such as food, housing and education.

I am hopeful of witnessing a significant improvement in access to safe drinking water and sanitation as well as conserving and protecting water resources if they are managed as economic goods. It is estimated that an investment of USD 1 in water, sanitation and hygiene management can result in gaining up to USD 34 through health and other benefits. Furthermore, improved access to sanitation alone can generate an additional 1,000 work-hours a year for a household, which accounts for around USD 100 billion a year worldwide.

At the global level, failure to meet the sanitation target would have consequences of loss of around US\$35 billion. In developing countries, the spending required to meet sanitation target is approximately US\$142 billion which

Volume 8 Issue 2, February 2019

www.ijsr.net

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accounts for per capita spending of US\$28. It is also estimated that \$1 investment in sanitation can result in \$9.1 return globally.

“Sanitation is more important than independence”- Mahatma Gandhi

Sanitation also represents a vast market and substantial revenues if linked with entrepreneurs who can offer sanitation services such as construction of latrines, maintenance, and collection and treatment of excrete. Urine and excrete could be potentially used as fertilizer which can multiply the economic benefits in local area. Using waste for biogas production can significantly reduce the spending on electricity in local economy. Many international and national development players such as Gates Foundation are putting significant effort towards pioneering business models to address the sanitation crisis.

The risk of water contamination during storage and handling is more in households that lack improved sanitation. In Asia and Africa, it is common for local water resources to not be used for drinking water supply due to contamination, caused by inadequate sanitation services and hygienic behavior. This leads to unnecessary investment in distant and expensive water sources for drinking water supply. Due to increase in water pollution, the cost of water treatment across different sectors that need clean water to function has gone up manifold in recent decades.

The world's population is hosted at river basins that deserve to be protected and conserved with strong focus. River systems are not only a source of livelihood but also the lifeline of any country. Unpolluted and continuous flow in rivers is of utmost importance for the economic growth and development of any country.

Blurb 2: Unpolluted and continuous flow in rivers is of utmost importance for the economic growth and development of any country

However, in recent decades, rivers are among the most polluted natural resources, thanks to inadequate sanitation and industrial wastewater management. The flow of untreated wastewater into rivers makes them uninhabitable for aquatic lives and thus disrupts the ecosystem.

The over-extraction of water by agriculture, industrial and other sectors results in rivers with no water for some months of the year. The longitudinal and vertical connectivity of the rivers is highly endangered due to piecemeal development of dams, hydropower projects and uncontrolled withdrawal of groundwater. On the other hand, the amount of effort towards harvesting rainwater and replenishing groundwater is far behind the requirement.

So, the question is how can these crises be addressed? How can the economic condition of the poor be improved through addressing the needs of water, sanitation and hygiene? My answer would be the management of water, sanitation and hygiene in a way that does not make anyone suffer when getting access to it when needed, as well as a way that does not deteriorate the condition of the natural resources.

The effort for sanitation management should focus on keeping human beings separated from their excreta and dispose them safely in an environment-friendly manner. While the management of water should focus on keeping the local water resources unpolluted and perennial, and use stored water judiciously so future generation have access to it.

To achieve this, the driving force has to be the collective effort of citizens, governments, civil societies and private-sector players. Sustainability of the created sanitation and water infrastructure needs to be owned by the users or local communities with the support of the government and private-sector service providers.

Change in hygienic behavior would significantly reduce the water and sanitation-related diseases among poor. Meanwhile, environment-friendly water-use behavior in agriculture and the industrial sector would reduce the pressure on freshwater bodies especially rivers and groundwater. The recycling and reuse of wastewater is another approach to conserving freshwater bodies as well as reducing their pollution load.

Blurb 3: Change in hygienic behavior would significantly reduce the water and sanitation-related diseases among poor

These efforts can significantly reduce health expenditure, the time for fetching water, sustaining the existing infrastructure and reduction in investment for rebuilding them, and increase investment in education and livelihood for the poor.

Also, we need to change approaches that have failed to address these crises over decades. The need is to identify an approach that makes the users and sufferers the driver in this mission. What is that approach? For example, millions of youths in low or middle-income countries are on the lookout for employment opportunities. They might be doing something mechanical without getting paid, but are passionate about doing something creative. The approach lies here.

Train these youths, equip them with skills and connect them with communities as mechanics of water and sanitation systems. In most parts of the world, the water and sanitation systems remain down for a long time not because of lack of money but because of absence of service-providers responding on demand. This approach addresses both crises simultaneously. More interestingly, these youths serve their own communities and get paid.

Similarly, how can the hygiene behavior of users be changed through an innovative method? This again needs switching from traditional approaches to an approach that helps people recall the times when they lost something due to unhealthy behavior. Hygiene education should be a reminder of incidents that communities witnessed in their lifetime and in their own locality, rather than a message for pushing people to realize the future impact of their behavior.

For example, the innovative hygiene education method for a community would be identifying the most recent diarrheal

incident, developing a play around it and performing it for the same people who lost their near and dear ones due to unhealthy behavior. This should change their behavior as no one wants to lose someone from their family or community again for same reason.

It is seen that hygiene education is often delivered by outsiders. My idea is to train people from the same target communities where the incident happened to deliver this education. Victims can retell their story much better, and discussion on the issue can last long after the play is over.

In the end, it is all about how to approach the problem that needs to be eradicated.

References

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Author Profile

Satya Narayan Ghosh has earned MA in Rural Development from Visva-Bharati University (Shantiniketan), India. He has been serving the development sector to address varied challenges in India and abroad for last 14 years. He has led many development projects and programs in India that created a new debate on how the crisis of development could be addressed through innovative approaches.