UNU- INWEH GLOBAL WATER CRISIS ( Paraphrasing )

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One of the key features of mankind's existence, the essence of our survival, water. The basis of humanity and a major factor in sustainable development, control over water we use is detrimental for the successful completion of the 17 (SDG's) Sustainable Development Goals. However, the importance it deserves is clearly undermined as it's already a lacking commodity in certain areas. An estimate to the severity of this calamity is that by 2035, 40% or more of the world's inhabitants will be affected by a shortage of water.

The fresh water affected by this shortage is mainly from river basins that share borders, this pulls in the political side of the issue where, the agreements are lack-luster. The ever-growing spontaneity of the environmental changes are quite the test for said agreements. The topic further springs up the debate of how water should be looked at, a basic human or a rarity that should be priced accordingly and used moderately. Free use however has its drawbacks like, most importantly, corruption, wastage and mismanagement. These further branch off into more specific causes like such as water infrastructure being damaged, water-based disasters and unsustainability. This is backed by stats like the death of 12.6 million with 112 million being affected and a net less al USD 114 billion per year from 2005-2015. The situation at hand isn't expected to heal any time soon with there being a 40% gap in supply and demand. One of the causes for this the is the 30% loss of water globally through leakages. An effect of this is compromise with 1-8 billion people relying on water that's contaminated by waste.

Initiating the long list of causes of the water crisis is water sparsity. The misconception of water being plentiful ie 70% is a widely popular belief when fresh usable water simply maxes out at 2.5% . With humanity estimated to grow to up to 9.7 billion by 2050, up to 40% of that population is expected to live in areas with severe water insufficiency. The numbers alone aren't at fault as overuse is taking a toll on water supplies too, with water demands predicted to quadruple by 2050 for industrial use. As supplies suffer, national governments. are undoubtedly going to struggle and work together to find a solution as most countries share river basins. Though numerous of agreements have been signed their effectiveness is & still a blur.

This then leads us to water-based tragedies like droughts. Being the most dominant factor for water shortage by basis of disasters Just in the us they've cost about $6-8 billion worth in losses annually. The severity outlined by the fact that over the last 20 years 27 million tons of yield has succumbed to droughts. This however doesn't mean that an excess of water is the right call as a majority of natural disasters are water based, with flooding leading the charge and with the population ever-growing, more and more become prone to encounter floods thus leading to more assets being affected, a rough estimate, is around $45 trillion worth of assets to face flooding. These odds are pushed by climate change and deforestation with stats suggesting that by 2050 around 2 billion people will be affected by this issue. With almost 70% of all deaths being attributed to natural disasters, the numbers seem frightening. Estimates suggest that weather and nature-based disasters could be the cause of displacing up to 200 million people by 2050. Within 16 years from the year 2000, the financial damages due to natural disasters have summed up to $453 million taking the lives of 107,000 globally. Such disasters however can be controlled by water affiliated ecosystems. The mangroves, coastal wetlands and coral reefs have all played a major part in acting as a road block against these floods saving millions of dollars’ worth in potential damages. However, these benefits are this indefinitely disregarded as these regions are in constant decline due to the rise in industrialization.

On the topic of the affected ecosystem, the pros don’t end there. With tropical forests having their hand in water management, it's undoubtedly clear that a healthy ecosystem is the way forward. From water purification to erosion prevention and even controlling water flows, tropical forests display their importance, a significance that's sadly over-looked with over $ USD 20.2 trillion worth lost in land use. These environments are the source of $75 billion worth in natural goods and other benefits yearly. With these gains not just being limited to humans as a large majority of wildlife in inhabited in these areas. Humanity however did ruin this aswell with 64% of the world's wetlands being lost, a steady reduction in numbers of over 76% of fresh water species from 1970 to 2010. These wetlands also act as carbon sinks, peatlands are the wetlands responsible for accumulating carbon dioxide in forests, the 15% decrease in such regions however disturbs the equilibria with about 80 megatons of carbon dioxide being emitted just in Scandinavian nations marking up about 1/4th of their total emissions. The downfall of the ecosystem can further be blamed on eutrophication, with the growth of algae, the contaminated water is expected to rise in quantity by 20% until 2050. This leads to estimates of the number of people affected by poor water quality to increase to 20% of the population. Such a wide array of numerals declare the gravity of the situation where the water that's already low in supply isn't fit for Consumption or use. This is proven by stats as about 663 million people suffer from the deficiency of water that’s safe, healthy and cost effective, with the Bangladeshi population reaching up to 45 million for those that consume water having high quantities of arsenic. This numbers being an part of WASH (water, sanitation and health crisis).

The hygiene portion of WASH have suffered even greater adversities making the progress ever so sluggish with 2.4 billion missing adequate sanitation facilities, with a majority of those affected comprising of females. With about 11% of child deaths being due to diarrheal diseases, often caused by a lack of quality water and sanitation, the affected span across all genders and ages. Household problems don't account for all the numbers as workplaces and schools etc also. suffer an absence of WASH. Health facilities themselves struggle with this as upto 35% of them don’t even have adequate supplies of soap and water for washing hands. Another misconception is that a lack of WASH is limited to third world countries. Canada disputes this as it’s been revealed that basic water and sewage services aren’t present for over 5000 homes. Over 3.5 million people die due to unreliable water, sanitation and hygiene every year, the statistics get worse and worse as these deaths represent upto 25% of children that die before the age o14. The situation is obviously dire as early 10% of the global population are forced to excrete openly due to a lack of public restrooms and poor sewage. This is a significant problem in India as the search for restrooms or spots to defecate in public costs over $10 billion in productivity loss. As an overall the losses due to a lack of WASH accumulates to nearly $260 billion every year.

From the deficiency of WASH, we’re led to the destruction and ineffectiveness of the water framework. Many regions that were considered as “been supplied to” or dealt with in terms of water infrastructure were prone to faulty devices according to the Millennium Development Goals. Taking Africa as a prime example, despite their claims of installing over 60,000 new handpumps, 36% of the total handpumps were found to be faulty summing up to $1.5 billion in losses. The lack of maintenance further causes leakages in water systems due to which nearly 45 million cubic meters of water is lost, to put that into perspective tis amount is enough to cater for 200 million people. The longer these issues are ignored the costlier it gets as by 2040 the predicted budget required to maintain these systems in just the USA could rise to $195 billion. It wasn’t until the introduction of the SDG’s that these issues were given attention to. Therefore, underdeveloped regions ie agricultural lands in third world countries have been oblivious to the cons and have used wastewater whenever in need making the crops suffer. This causes newfound diseases in many age groups as children from these regions are 62% more prevalent to Gastroenteritis causing higher medical bills. These issues are usually credited to poor governance as a lack of responsibility and accountability paves the way for corruption and mismanagement. Its not always the lack of maintenance though as deliberate attacks can also be seen as a major cause, for instance a 2016 air strike in Syria ruined water supplies for over 3.5 million people and whatever was recovered and restored had a permanent decrease in supply which catered for 1.4 million people. The affect of attacking water supplies has its dominance in politics which often make it an easy target in wars and has been an ongoing trend. Coming back to wastewater, reuse although can be done should only be practiced after sufficient treatment and purification. The reality however differs as 80% of wastewater is simply reused without thought or isn’t checked thoroughly enough. This is mainly a concern for third world countries with only 28% of wastewater being treated. The contrast from developing countries to the more developed is massive in these situations but the issues remain prevalent regardless.

Despite the variation in water management from country to country, a revamp in water facilities is much needed to achieve the SDG 6. As a study from 2016 states” the longer governments take to act, the harder it will be to deliver on their promises by 2030, and that the work required to achieve this milestone is just going to exponentially increase with every 3 years of inactivity. Achieving the SDG-6 won’t just benefit the water-based problems, as its going to work towards the improvement in several other sectors like health, education, economic activity, production of resources and food and even transport. The list goes on and on as water is fundamental to the development of these sectors. These activities however have their downsides as the disposal of human waste in water courses accumulates to 2 million tons, fossil fuels pollute upto 18 billion cubic meters while nearly 50% organic water pollutants are due to the food sector. This unsustainability isn’t that easy to avoid either as the cost of meeting the targets sum up to $114 billion every year. To add to these financial burdens is the 2 degree global rise in temperature that adds a sum of $13-19 billion ever year until 2050 in water-based costs. These costs can however be tackled through proper preservation of water-related ecosystems and active work in the sector of sustainable development in water management. The longer the wait is the worse it gets to handle in the future.