

# Research Reports

## MSMUNQ VI: The SDGs





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**Forum:** Sustainable Development Goal 10, Reduced Inequalities

**Issue:** Measures to reduce inequality in North Africa in regards to water accessibility

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## **PART 1 of the Research Report: Root Causes of the Issue**

Despite water being essential for life, nearly 2 billion people don't have access to clean water daily.

1. What [social factors](#) cause this issue? How does it do so?

### **Gender inequality and discrimination**

- In many rural communities or low-income households, where water isn't as easily accessible, the task of fetching water often falls upon women (thanks to social norms and gender roles). Studies indicate that in countries like Sudan, the burden of fetching water falls on women or girls 71% of the time. Women often have to walk for hours, in the heat, to fetch water for the household.
- This can often result in many health complications, such as spinal issues and limb pain due to the stress of lifting heavy buckets for long periods of time, as well as heat strokes due to the



excessive time spent in the heat (temperatures can often rise as high as 55°C in North Africa).

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- Due to the time consuming nature of it, women often have to sacrifice their education or careers in order to fetch water. This takes away their security, making it more difficult for them to gain independence to get out of dangerous situations such as poverty, an abusive relationship, etc.
- The importance of safe and easily accessible water is also higher for women, as women have to deal with menstruation and pregnancy and are more vulnerable to grave repercussions from unsafe water and sanitation related diseases. Due to unsafe water and poor sanitation, one can contract life-threatening diseases and viruses, such as cholera, hepatitis A, polio, HIV, etc, which combined with pregnancy can lead to fetal and maternal complications. In fact, the WHO announced that 810 pregnant women in poverty die daily due to maternal complications.

### **Rapid population growth**

- Rapid population growth can lead to demand for food increasing, leading to further stress on the agricultural field of the particular country. Thanks to a study conducted by the world bank, it was discovered that the agricultural industry tends to be the greatest consumer of freshwater in a majority of North African countries. Data showed that agriculture used 60% of freshwater in Algeria, while in other North African countries like Algeria, Egypt, Tunisia, Sudan the agricultural industry used upwards of 80% of the freshwater available.



### Children and young people

- Diarrhea, usually caused by unsafe water and a lack of decent toilets and sanitation facilities, kills a child under five every two minutes. Especially since their immune systems aren't fully developed yet, they are at risk from the day they are born. Due to the water accessibility issues they face, they tend to fall sick often. This impacts their education immensely; they're often too sick to be able to go to school or at least attend school regularly. As education is very important in today's world, this unfortunately impacts them and holds them back for the rest of their lives.

### People with disabilities and Older people

- Due to the lack of mobility aids in most nations, people with physical disabilities and older people (with limited mobility and strength) may have to rely on family and friends to assist them in collecting water or in using the toilet. This can limit their independence and can be a very dehumanizing experience. On occasions where they may have no one to assist them, they may be forced to sacrifice their safety to access water or sanitation facilities, ex: if they're unable to use their lower limbs, crawling across an unsanitary toilet floor, or if they're partially sighted, they may have to use their hands or legs to look for the toilet bowl - as toilets aren't the most sanitary of places, they could usually contract a virus this way.
- Due to a lack of education on disabilities in certain places, they may also face discrimination from their community. They may be told they shouldn't use their communities' sanitation facilities or access water from the same points, forcing them to resort to more unhygienic options. Older people and people with mental or physical disabilities may be forced to retire



or may be unable to work, and with no income to support themselves, they're more likely to live in extreme poverty.

2. What economic factors cause this issue? How does it do so?

### **Urbanization**

- Cities and other urban areas often tend to have more employment opportunities, and thus have a strong concentration of immigration, leading to a lot of population density. This means that cities usually need to be developed more to sustain this influx of population. However, due to just how rapidly the population is growing, public services are struggling to keep up. Greater population density may enable communities to invest in more efficient and cost-effective water management, but people who live in cities tend to use more water than those living in rural areas.
- Rapid urbanization can hinder the development of adequate infrastructure, such as effective distribution methods, sewage systems, and regulatory mechanisms. However, accessibility issues tend to be more prevalent in rural communities. People in rural communities lack access to appropriate, low-cost and locally produced technology for water, sanitation and hygiene needs, and can't take advantage of economies of scale as much as urban communities.

### **People living in Poverty**



- They are often denied access to safe water and sanitation facilities, thus have no choice but to drink and use dirty water and use an unhygienic toilet. This can be very risky as they are at risk of contracting deadly (diarrhoeal) diseases and may be often sick. The closest body of water may be tens of kilometers away, which means they'll have to spend hours each day traveling there to collect some, and this task will often have to be undertaken during the mornings while the sun is still out. This means that they may be left with little time to go to school or work, restricting their already limited ability to leave poverty.

### **Privatization**

- The privatization of water means that ownership of water resources and facilities will be handed over from the government to non-government firms. This means that these resources can now be charged for a profit, which means it's price will increase. This will affect low-income people more than it will middle to high-income people as the expense of water related resources and facilities will be a higher percentage of their income. Preventing them from spending that money on other needs such as food, rent, clothes, etc.

3. What political factors cause this issue? How does it do so? Political factors can be:

### **Conflict, political instability and poor governance**

- Due to a lot of conflict in North Africa during the past few decades, issues like water accessibility may not have been at the forefront of government focus. The prior stated conflict may've also further worsened issues like poverty and consumed a lot of resources, leading to water accessibility worsening. Fresh water is a rare, scarce resource and thus usage



should be more carefully managed by governments, especially in regions where water is scarce, such as North Africa. Poor management and conservation of water usage can lead to water resources getting depleted quicker, leading to the water crisis as well as inequality to it's access worsening. Governments should ensure that water-heavy production isn't taking place in water-scarce regions.

4. What other factors cause this issue? Health? Such as a pandemic? Physical? Such as Natural Disasters? Show how each of these root caused has contributed to this problem

### **Covid-19 and the pandemic**

- The importance of hygiene has certainly been pronounced since the start of the pandemic. As covid-19 is a virus and can easily be spread through contact, proper sanitation facilities are key to preventing the spread of it. Unfortunately, in many rural communities where sanitation facilities are often shared due to poor infrastructure, members of the community often have to risk catching covid everyday. Rural communities also often lack the health infrastructure to properly deal with covid, which may mean an increase in covid related deaths. The pandemic also exacerbated poverty rates, undoing work the world has done over the past few years, and this definitely worsened the water accessibility issues.

### **Climate change**

- Climate change affects water scarcity in North Africa immensely. In a study conducted by the Suez Canal University, it was discovered that a 1% increase in temperature in the winter results in a 1.12% decrease in agricultural production in North Africa. This can be attributed to the decreased rainfall and increased droughts that are also a cause of climate change. This



leads to the demand and usage of water from lakes, rivers, underground, etc increasing to supplement the rainwater, leading to the supply of water further decreasing.

5. How long has this issue been a problem?
  - This issue has existed since the beginning of human civilization as water has always been a need and has always been scarce. Human civilisation was built around water - areas with larger fresh water resources tended to have more developed civilizations surrounding it. In the past, issues with water accessibility were more grave as we didn't own the technology we do now to pump water out of the ground, filter it, or transport it, so people used to more commonly fall sick and pass away. Unfortunately issues with accessibility to it as well as inequality has always been an issue. In the past women on their period were commonly temporarily excommunicated from their communities as knowledge of menstruation was very poor. (This still occurs in certain parts of the world). Since then we've thankfully come a long way, inequality has decreased immensely and water has been made much more accessible, however we've unfortunately not come long enough.
  
6. Why is this issue a problem? Why does it need to be solved at all?
  - This issue is a problem because water is a human need and thus a human right, and hence the deprivation of it is inhumane. If we weren't to treat a human need as what it is: a requirement, and were to pick and choose who we provide it to, it would be as to say some lives are more valuable than others, which is simply untrue. If we were to provide everyone with their basic human rights, starting from the right to water, they would be able to flourish as a human being and in society. If we were to make water more accessible, perhaps people



wouldn't have to spend hours everyday walking to fetch it, and could actually attain an education or participate in the economy. This would significantly increase their chances of escaping poverty and thus increase their security and lifespan (women in poverty are 2.5 times more likely to be forced into marriages than women not in poverty, they are also more likely to face sexual exploitations, human trafficking and many of the women in poverty dealing with violent relationships are unable of getting out of them), and would also increase the GDP massively.

7. Which organizations benefit from the status quo?

- Private water firms and organizations investing in water in hopes of it's value increasing due to its scarcity. The demand for Mutual Funds that contain companies that specialize in the delivery, testing, and cleaning of water has already risen. As we irresponsibly over consume water, the supply of water will decrease, thus leading it's value to increase. Water scarcity is most pronounced in regions with high population growth such as North Africa.
- However, if we truly consider everything and the benefits of changing the status quo, we'll see that the benefits of changing it greatly outweigh the small benefits of the status quo that only profit the most privileged minority.

8. How does North Africa benefit from the status quo?

- They don't. Water inaccessibility issues are bad news for a country, as water is key to living and thus being unable to access it fully leads to lower living standards for its citizens. Low living standards means an individual is unable to participate fully in society and the



economy. This can lead to a lower GDP and in general lower growth in a country. Being unable to have safe and easily accessible water can also be a very traumatic experience for a person to endure as it's effects on the health are quite risky and detrimental. Having to live with the knowledge that you're consuming something that may one day cause you to fall sick and pass away, however having no choice as otherwise you'd just immediately die is quite scary knowledge to live with. You're essentially playing the lottery with your own life. This can quite understandably cause resentment towards your country's government and if this problem is widespread enough, it can lead to tensions rising against a government and mass riots, protests, etc.

- The country would also lose out on potential economic growth and employment opportunities due to its water scarcity, as businesses that use water intensive production wouldn't be able to set up there.

10. Which countries/groups are the most impacted by this issue?

As this issue is a worldwide issue, nearly every country in the world is impacted by this issue.

However, LEDC's are more detrimentally affected by this issue as they may not have the same resources MEDC's can attain to deal with the issue and it can also quite easily worsen poverty rates within a country.

11. Which countries/groups should take the lead in solving this issue?

- The ESCWA committee of the UN urged MEDC's to assist LEDC's through funds, investment in research and development, etc, and highlighted the importance of transboundary water cooperation - cooperation between neighboring countries to share



freshwater sources such as lakes, rivers, etc. Every nation should also take the time to invest in sustainable water practices (ensure fines are put in to prevent water pollution, ensure leaks in water pipes are fixed, etc), as well as raise awareness of just how scarce water is as this is not a widely known fact.

## **PART 2 of the Research Report: UN Treaties/Policies/Resolutions**

This section covers what UN action has been taken to address this issue on the agenda

1. Which resolutions are linked to this issue [ratified](#)?

- In September 2011, the HRC committee of the UN adopted a resolution called “The human right to safe drinking water and sanitation” ([A/HRC/RES/18/1](#))
- In March 2000, at the second World water Forum the Gender and Water Alliance (GWA) was established to work towards achieving women’s and men’s equitable access to safe and adequate water.

2. How far did this resolution solve the issue?

- The resolution was aimed towards ensuring nations take responsibility for the human rights of its citizens, as well as ensuring that proper, practical plans and strategies are put in place to achieve water accessibility for all. It proposes detailed, multi-pronged solutions on how safe drinking water and sanitation facilities can be achieved, and mentions introducing several frameworks.
- The GWA holds regular meetings every year and is constantly working towards achieving gender mainstreaming (integrating a gender equality perspective at all stages and levels of policies, programmes and projects) in water management. They’ve taken massive steps forward in achieving this in countries like Bangladesh, Nigeria, etc.



3. Why wasn't this resolution completely effective? Was it blocked by a specific organization/country? Were there any objections from a major organization

- Although the resolution was quite detailed and contained multiple strategies to ensure policies and frameworks were effective and constantly being improved upon, this resolution wasn't completely effective as the resolution only recommended and encouraged action from member states, taking action wasn't enforced, thus there's no guarantee that any nation will actually implement any of the solutions proposed.
- The resolution was also adopted without being voted upon, which means that the member states may not be completely willing to act upon the resolution, as they may feel they may not have had an active voice in its adoption. This also means that no one made a clear, eventual commitment to adopting any of the solutions, and thus will feel less need to.
- The GWA isn't a body of the UN and hence holds less power and has fewer resources. Thus they're only able to focus their efforts on a few countries and haven't yet made any progress in any country in North Africa.

### **PART 3 of the Research Report: Possible Solutions**

- There are two prongs to this issue:
  - Reducing inequality when it comes to water accessibility



- Reducing water inaccessibility and scarcity so that inequality is also easier to reduce

### **Solution 1: Improving agricultural practices**

As the majority of North Africa's freshwater usage is due to its agricultural sector (it uses a whopping 80% of North Africa's freshwater), improving agricultural (when rain water is used to water crops) and irrigation (when water is artificially applied to crops through hoses, sprinklers, etc) practices would immensely help. Systems like drip irrigation, which deliver water straight to the roots, is an excellent way of conserving water (by upto 80%) while also increasing crop yield (it's been known to increase crop yield from 100% to 400%). One of the reasons it conserves water is because it reduces evaporation and only supplies the crops with just enough water.

#### Pros:

- Systems like drip irrigation that conserve water also help with producing more yield, by ensuring nutrients and fertilizers also reach the plants efficiently, and thus improving yield and productivity for farmers and the agricultural industry
- If agriculture utilizes less water then the demand for water will heavily decrease, enabling North Africa to conserve more water and lower it's water. Water prices may also decrease, enabling people in poverty/lower income families to have to spend less of their income on water.

#### Cons:

- The agricultural sector employs 10-40% of all people in employment in North Africa. Systems like drip irrigation also happen to be zero labor as they're automated. Hence, if drip irrigation is employed in North Africa's agricultural



industry, then unemployment may increase drastically, as workers are needed in lower quantities.

### **Solution 2: Encouraging government and NGO collaboration**

Thanks to the work done by nations and NGO's all over the world, since 2000, 1.3 billion people have gained access for the first time to water. However, a lot of water and sanitation facilities in developing countries are still unreliable, and usually need repairs every 2-3 years. NGO's have worked tirelessly to install pumps all over the world. Once an NGO is done building a pump in an area, they usually enact a "water committee" from the citizens in the local area to take care of it, and then move on to a different area. However, the water pump eventually breaks down and needs repairs and the local community usually lack the resources to actually

### **PART 4 of the Research Report: Bibliography**

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