MUNoH 2021

Forum:	Special Commission on Africa
Issue:	Finding Answers to Africa's water problem with focus on water security distribution and access
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Description of the issue:

Water is both a basic human right and an economic good. The term water stress or water scarcity defines the condition when the demand for safe, usable water in a given area exceeds the supply i.e when communities can not fulfill their water needs, either because of deficient supplies or inadequate infrastructure. Often, water scarcity is divided into two categories. Firstly, physical scarcity, when there is a shortage of water because of local environmental conditions such as rainfall. The other one is economic scarcity when there is inadequate water infrastructure. Both frequently occur together to cause water stress.

According to the World Health Organization (WHO), one in three people worldwide does not have access to safe and regular drinking water. African countries and Sub-Saharan Africa (SSA) in particular, are often affected by this issue. Water scarcity can look like scarcity in availability due to physical shortage, scarcity in access by cause of institutions' failure to assure a regular supply or due to a lack of adequate infrastructure. Moreover, multiple aspects are contributing to this problem. Despite Africa's richness in water bodies, water access, distribution and security are huge problems, with poor management being the reason for that.

Most affected is SSA, as 40% of the world's 2.2 million entire population lives there without access to clean water sources. On top, SSA is the poorest and least developed region worldwide. 70% of the SSA population rely on groundwater for their everyday use. However, groundwater resources are often poorly managed, and in some areas, particularly urban centres and intensively cultivated areas, are already overexploited or contaminated. Furthermore, in places like SSA, water gathering requires much time that is additionally taken

away by water-borne diseases. Girls and women, who are mostly responsible for collecting water, spend on average 30 minutes or 6 kilometres. Lost education and slow economic development are a consequence of the everyday search for water.

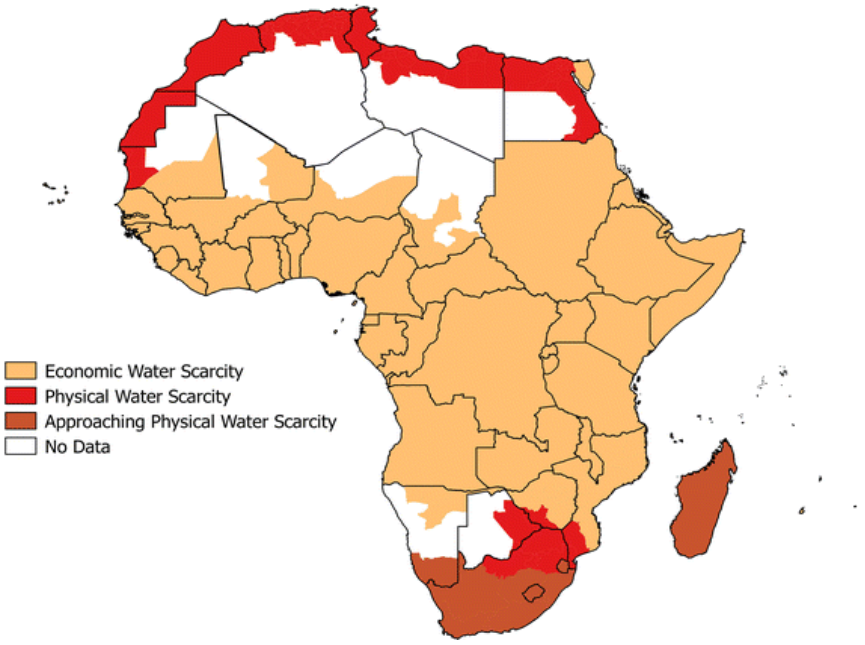

Figure 1: Economic and Physical Water Scarcity distribution in Africa

Furthermore, the recent population growth, especially in urban areas, socio-economic development and more needed agriculture, will increase the water demand and affect the whole planet if no suitable measures are taken. According to the UN, the number of people living in SSA has nearly doubled in the last 25 years, but access to water and sanitation has only slightly and slowly improved and still falls well below the global average. In the water sector alone, it is commonly estimated that the continent needs to invest approximately US$50 billion annually over the next three decades to overcome the gap of lack of infrastructure and service future needs.

There is an urgent need to act now, as the US$20 billion originally estimated in 2000 in the Africa Water Vision 2025 are already significantly exceeded. Due to multiple reasons, a near ten-fold increase in the estimated cost of water-related infrastructure to support economic growth, food and energy securities and adaptations to climate change and hazard management occurred, challenging current programmes.

Data from the United Nations Environment Programme (UNEP) has shown that 25 out of the 55 countries on the African continent will record water levels below 1,700 cubic meters per capita per year by 2025, representing an acute water shortage in these countries.

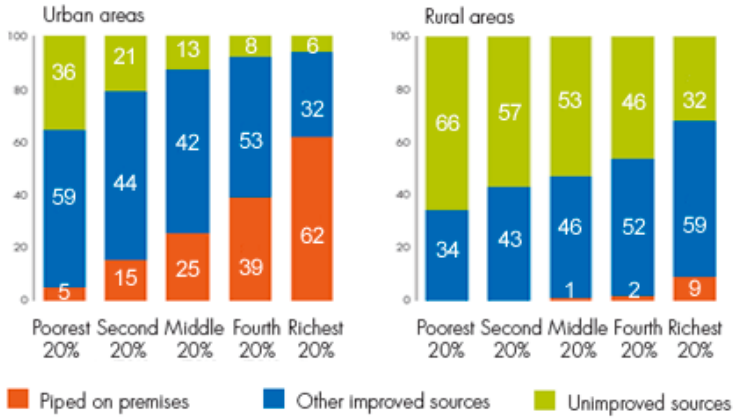

Figure 2: Water distribution with focus on differences between Urban and Rural areas

Figure 2 demonstrates the social inequality of water distribution in Africa. It shows how different social classes in urban and rural areas are affected by unimproved water sources, meaning undeveloped and inadequate water access. Piped on premises means, that there is a water connection inside of user's residences, other improved sources refer to e.g public tabs, standpipes, tube wells etc. This is also addressed in a report from 2009 called Water Distribution in Africa: The Behavioral Relevance of Scarcity and Social Status.

Background information:

human health issue:

Water access is not only rare in Africa but also widely unsafe, as the use of unfiltered water causes diseases, and spread them fast. Using clean water can also prevent diseases, which is especially important considering the ongoing Covid-19-pandemic. Moreover, SSA has reported more Cholera cases and deaths in 1990-2010, than in any other region. Climate change, urbanisation and population growth are acknowledged to increase the risk of cholera by the World Health Organization (WHO). Their Global Roadmap to 2030 on ending Cholera recognizes access to safe water, sanitation and hygiene as a human right, that prevents such diseases but is not given everywhere. Furthermore, access to proper sanitation facilities separates human waste from human contact, but if those are not provided, human waste is transferred back into people's food and water resources. Only 44% of the urban population in the SSA and 24 per cent of the rural population have access to adequate sanitation. On another note, carrying a water gallon on a head, the most commonly used method to transport water, can cause physical damage, especially with children.

climate issue:

Climate change enforces increasing temperatures and decreasing rainfall in North and South Africa and increased rainfall over the Sahel, which will automatically make the availability of water resources declining or unpredictable. In 2008 the IPCC stated the possibility of higher resource conflicts as a consequence. Droughts and floods have also significantly increased due to climate change. While flooding creates problems such as contamination of drinking water and destroying of hygiene and wastewater systems, droughts cause the most death by creating food shortages leading to malnutrition and no water supply. As the rainfall in Africa can be compared to Europe with about 670 mm per year, it differs by higher evaporation rates. This causes unsteadiness in food access and is also an economical problem. Besides, subsequent health and economic impacts are caused by already existing farming issues. African farming is mostly dependent on rainfall and can therefore cause malnutrition and poverty.

economic development issue:

Of the 2.37 billion increase in population expected worldwide by 2050, Africa alone will contribute 54%, according to the UN. In the last 25 years, the region's (SSA) population has almost doubled, yet access to water has only improved by 20 percentage points within this duration. While Africa impoverishes, agricultural products become more expensive. Moreover, Africa is losing 5% of its GDP as a result of poor water and sanitation infrastructure, and 5-25% to drought and floods. The future impact on climate change with an economy heavily relying on agriculture could bring a further 5%. All 15 countries depending most on agriculture worldwide lie in Africa. In e.g Tanzania, 76.2% of the population is dependent on agriculture according to research from the World Bank, 2007. Moreover, a growing population has a larger demand for food, making this a serious issue.

security issue

Taking previous points about human health and time-consuming water gatherings into consideration, it is no wonder that security is merely given when it comes to water resources. Two-thirds of sub-Saharan Africa rely mostly or completely on surface water which is often highly polluted and not considered a reliable and safe source of drinking water. Infrastructure to pipe water from fresh and clean sources in dry areas or drilling for water is too expensive and forces communities to resort to dangerous alternatives.

Political issue:

Water stress is also a political issue, as legal authorities are responsible for planning and managing water bodies and regular access. However, these authorities often do not possess the monetary means for the needed management and therefore, this becomes a political problem.

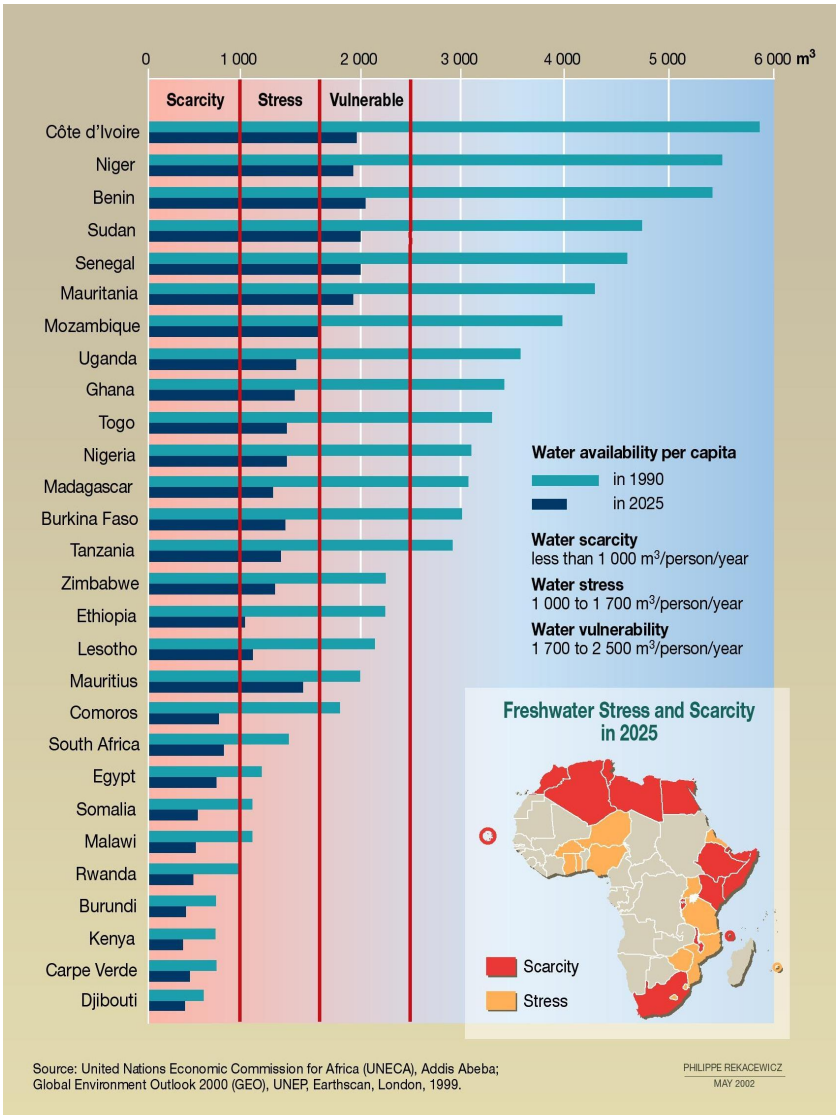

Figure 3: Changes in water availability from 1990 compared to the estimated water scarcity, stress and vulnerability to scarcity in 2025

Historical Background:

For the last 30 years in Western Sub-Saharan Africa, unsafe water sources have been amongst the top 4 causes for death, always closely followed by sanitation. While North Africa has to deal with physical water scarcity, i.e lack of water, in the South of Africa economical scarcity, i.e insufficient infrastructure is missing. The causes for physical water scarcity are natural and due to climate change, whereas the origin of economical scarcity is humanitarian like overexploitation of water resources, pollution of those, growing population with increasing demands. The United Nations established many bodies like UN Water, that amongst other organisations such as AMCOW work on solving this issue.

Glossary:

WHO

WHO is short for World Health Organisation. Its function is to direct international health in UN countries. Whether health emergencies appear, or protection in health issues is needed, the goal of the WHO is, to help with these issues. (https://www.who.int/)

SSA

SSA is the abbreviation of Sub-Saharan Africa and defines the area of the African continent, which is located south of the Sahara. 49 of the 54 African UN member states make up the SSA region as used in statistics, which differs from the geographical definition of Sub-Saharan Africa. For more information look up maps on this topic.

Sahel

The Sahel or Sahel zone describes the realm of transition between the Sahara in the north and the wet savanna in the south. It stretches across six countries from Senegal to Chad and is know for an arid climate.

IPCC

The Intergovernmental Panel on Climate Change, IPCC, is a United Nations body, that supplies policymakers with scientific information on climate change and its potential future risks. (https://www.ipcc.ch/)

Africa Water Vision 2025

The Africa Water Vision 2025 is a 15-year plan from both UN bodies and African institutions, that is designed to avoid a worsening in water issues for an economically developed Africa and well-being society. With financial aid, it aims to improve governance and meet water demands.

GDP

GDP stands for Gross Domestic Production. It is a measurement of the monetary value of all finished goods and services of a country within a specific time period. It therefore can provide an economic overview of a country that is used to estimate the economy and growth rate.

UN-Water

UN-Water is a specifically established body, that coordinates all 30 UN bodies working on water and sanitation programmes. Its goals are e.g to reach SDG6 or the 2030 Agenda. For further information on these projects visit https://www.unwater.org/.

AMCOW

AMCOW is the African Ministers' Council on Water, that amongst other programmes tries to solve the issue of water scarcity with a special focus on water management. (https://amcow-online.org/)

How to prepare as a delegate:

To have fruitful debates, you as a delegate need to be well prepared and know your topics. As this research report only gives a short outlook on the topic, further research on the topic of Africa's water problem with a focus on security distribution and access is required. Look up past treaties and resolutions and find out what has been done to improve the situation. Research that requirements Sustainable Development Goal 6 or the 2063 Agenda on African development need to be achieved and take a critical look at past actions taken and on possible obstacles. Find out what your country specifically has done for Africa's water problem and what their political standpoint is. If they have done nothing, find out which reasons impacted this decision. If you are an African delegate research your economic and political standpoint as well. All delegates are required to write at least one draft resolution and two/three position papers so that all topics of the forum are covered. Check your MUN booklet, if uncertainty about the formal requirements occurs. Please send your position papers and resolutions to your chair by 3rd September 2021. Remember that every paper sends in after the deadline will not be corrected by us.

UN resolutions:

1. Modalities, format and organization of the high-level meeting on Africa's development needs (A/62/L.29/Rev.1)
2. Political declaration on Africa's development needs: draft resolution / submitted by the President of the General Assembly (A/RES/63/1)
3. Cooperation between the United Nations and the Southern African Development Community (A/C.2/52/L.7)

Useful Links:

Official Digital Library of the UN to look up treaties and resolutions regarding this issue:

https://digitallibrary.un.org

UN Sustainable Development Goal 6, Department of Economic and Social Affairs:

https://sdgs.un.org/goals/goal6

Agenda 2063: The Agenda We Want, plan by the African Union:

https://au.int/en/agenda2063/overview

Johannesburg Declaration and Plan of Implementation of the World Summit for Sustainable Development:

https://www.globalhealthrights.org/instrument/johannesburg-declaration-and-plan-of-implementation-of-the-world-summit-for-sustainable-development/

AMCOW Official Website:

https://amcow-online.org/initiatives/AMCOW-Pan-African-Groundwater-Program-APAGrop

AgWA, Agricultural water management in Africa:

http://www.fao.org/agwa/home/en/

World Water Assessment Programme:

http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr/

Other Sources:

https://www.ascleiden.nl/content/webdossiers/water-africa

https://news.cgtn.com/news/2020-10-19/Water-crisis-in-Africa-Scarcity-amidst-abundance-UGMXwgwhkA/index.html

https://www.theguardian.com/global-development-professionals-network/2016/jan/11/population-growth-in-africa-grasping-the-scale-of-the-challenge

https://unfccc.int/news/climate-change-is-an-increasing-threat-to-africa

https://www.unwater.org/water-facts/scarcity/

https://amcow-online.org/initiatives/AMCOW-Pan-African-Groundwater-Program-APAGrop

https://www.globalcitizen.org/en/content/water-and-sanitation-crisis-sub-saharan-africa/

https://www.academia.edu/22034422/Water_Distribution_in_Africa_The_Behavioral_Relevance_of_Scarcity_and_Social_Status

https://www.who.int/cholera/publications/global-roadmap/en/

https://www.who.int/news/item/18-06-2019-1-in-3-people-globally-do-not-have-access-to-safe-drinking-water-unicef-who

https://greentumble.com/water-scarcity-in-africa-issues-and-challenges/

https://www.arcgis.com/apps/MapJournal/index.html?appid=429aa896ea9041568ef9dd6689199189

https://www.un.org/waterforlifedecade/africa.shtml

https://www.unwater.org/example-of-activity/partnership-for-agricultural-water-for-africa-agwa/

https://ourworldindata.org/water-access

http://ghdx.healthdata.org/gbd-results-tool

https://thewaterproject.org/water-crisis/water-in-crisis-rural-urban-africa

https://www.fona.de/en/new-research-program-water-security-in-africa-wasa-

https://www.cfr.org/backgrounder/water-stress-global-problem-thats-getting-worse

http://ecoloodi.org/en/people-walk-water/

https://www.worldatlas.com/articles/countries-most-dependent-on-agriculture.html

https://www.ipcc.ch/

https://www.britannica.com/place/Sahel

https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/african%20water%20vision%202025%20to%20be%20sent%20to%20wwf5.pdf

Pictures:

Fig. 1 https://link.springer.com/article/10.1007/s13280-017-0912-z/figures/2

Fig. 2 https://www.un.org/waterforlifedecade/images/africa/acces-to-water.png

Fig.3

https://i2.wp.com/www.internationalwaterlaw.org/blog/wp-content/uploads/2012/05/Africa_Water_Avaiability_Per_Capita1.jpg?ssl=1