Environmental Committee

Topic A

Ensuring the equitable availability and sustainable management of water and sanitation

I. Introduction

Equitable and sustainable management of water and sanitation resources is a pressing issue worldwide, with water insecurity affecting an estimated 2.2 billion people, and that figure is projected to grow to half the global population in 2025 (“Water scarcity | UNICEF”). This issue primarily affects poorer nations and communities, and every 2 minutes a child dies from water or sanitation related issues (“The Water Crisis: Shortage, Problems & Solutions”).

Combatting this issue is an ongoing challenge, and one that will not be done overnight. Potential solutions could include:

- Creation of new water sources, such as wells
- Desalination of existing water
- Reduction in water consumption through better agricultural practices and more sustainable use of water

All possible solutions have benefits and drawbacks, which must be considered when attempting to implement them. Experts agree that empowering communities is an integral part of combatting this issue, and creating long lasting prosperity for the affected communities ("Water for Life Voices: Empowering communities | International Decade for Action 'Water for Life' 2005-2015").

United Nations development goal 6: clean water and sanitation is the main UN sanctioned goal that should be considered when creating a resolution ("Goal 6 | Department of Economic and Social Affairs").

II. Key Terms

Renewable: A source that is sustainable, and able to be used indefinitely

Desalination: Removing salt from water, making it safe to drink

Contamination: When water, or a source of water, is infected with harmful chemicals, bacteria, or minerals

Water scarcity: The lack of sufficient available water resources to meet the demands of water usage within a region

Equitable access: The fair distribution of water and sanitation services, ensuring that marginalized and disadvantaged groups are not excluded

Right to water: Recognized as a human right by the United Nations, ensuring everyone has sufficient, safe, acceptable, and affordable water for personal and domestic use

III. Background Information

Universal Declaration of Human Rights (1948)

- Although it does not explicitly mention water or sanitation, the declaration's emphasis on the right to an adequate standard of living provides a basis for water as a fundamental human right.

International Covenant on Economic, Social, and Cultural Rights (ICESCR) (1966)

- Article 11 recognizes the right to an adequate standard of living, indirectly linked to water and sanitation.
- The UN General Comment No. 15 (2002) clarifies that the right to water is included within these rights.

Mar del Plata Conference (1977)

- The first global conference on water, organized by the United Nations.
- Declared water a finite resource essential for life, and emphasized the need for universal access to clean drinking water and sanitation.

Dublin Principles (1992)

- Adopted at the International Conference on Water and the Environment in Dublin.

- Key principles include recognizing water as a finite resource, promoting its economic value, and ensuring equitable access.

Agenda 21 (1992)

- Adopted at the Earth Summit (Rio de Janeiro), this is a comprehensive plan of action for sustainable development.
- Chapter 18 focuses on protecting the quality and supply of freshwater resources.

Millennium Development Goals (MDGs) (2000–2015)

- Goal 7 included a target to halve the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015.
- Resulted in significant progress, but sanitation targets were not fully met.

United Nations General Assembly Resolution 64/292 (2010)

- Explicitly recognized the right to safe and clean drinking water and sanitation as a human right.
- Encouraged states and international organizations to provide financial resources and technology to developing countries.

Sustainable Development Goals (SDGs) (2015)

- SDG 6 specifically focuses on "clean water and sanitation," with targets for universal and equitable access, water quality, efficient use, integrated water resources management, and protection of water ecosystems.

Paris Agreement (2015)

- Although primarily addressing climate change, it underscores the importance of water resources in resilience-building and adaptation strategies.

World Water Development Reports (Annual)

- Published by UNESCO, these reports provide critical insights into water-related challenges and progress.

UN-Water's Integrated Monitoring Initiative for SDG 6 (2016)

- Established to track progress on SDG 6 targets through global data collection and monitoring.

2023 United Nations Water Conference

- The first major UN conference on water since 1977, held in New York.
- Resulted in the Water Action Agenda, a voluntary commitment framework for governments, organizations, and stakeholders to accelerate water-related goals.

IV. Significant Nations

France

A leading advocate for climate resilience and sustainable development in the European Union, a strong supporter of the **Paris Agreement** (2015), highlighting the role of water in adaptation strategies, France's **Water Agencies** are globally recognized for their integrated water resource management (IWRM) approach. Member of the **European Union Water Initiative** (EUWI), promoting sustainable water governance in developing regions. Actively supports the UN-Water partnership and funds water projects in Africa and the Middle East. There is increasing water stress in Southern France due to climate change, which could pose a threat to long term sustainable growth and development.

Algeria

Located in the arid **North African region**, Algeria faces acute water scarcity. Part of the **Sahara and Sahel Observatory (OSS)**, promoting transboundary water cooperation. Investing in desalination plants and wastewater treatment to meet domestic water needs. Member of the **Arab League** and engages in regional water-sharing dialogues, especially regarding the transboundary aquifers like the **Nubian Sandstone Aquifer System**. Has large dependence on limited and unevenly distributed groundwater and a vulnerability to desertification and climate change.

Guyana

A **Small Island Developing State (SIDS)**, highly vulnerable to climate change and water-related disasters like flooding. Rich in freshwater resources due to extensive river systems but faces management and distribution challenges. Advocate for international climate finance to enhance

water infrastructure in vulnerable states. Focused on integrating water management into national adaptation plans. Lack of access to modern sanitation in rural areas and flooding risks due to rising sea level pose a challenge.

Denmark:

A global leader in water technology and innovation, with expertise in sustainable water management and home to companies like Grundfos, pioneers in water-efficient solutions.Strong supporter of **SDG 6** initiatives and provides technical expertise to developing nations. Actively participates in **UN-Water** programs. Climate-related risks, such as rising sea levels, affecting its coastal areas.

Panama:

A key player in Latin America with a strategic geographical location as the **Panama Canal** relies heavily on water availability. Faces issues of unequal water access across rural and urban areas. Committed to the **2030 Agenda** and works with regional organizations like the **Latin American and Caribbean Water Partnership**. Advocates for improved water governance and infrastructure. Water stress impacting the Panama Canal operations. Vulnerability to climate change and deforestation.

New Zealand

Known for pristine water bodies but faces growing concerns about pollution from agriculture and climate change impacts. Strong advocate for indigenous water rights, particularly **Māori water management practices**. Promotes a holistic approach to water management, respecting both environmental sustainability and cultural values. Active in Pacific region water resilience

initiatives. Pollution from agricultural runoff. Growing demand for balancing industrial use and conservation.

Greece

Located in a water-scarce Mediterranean region, facing challenges from drought and overuse of groundwater. Active in EU-wide water policies, especially in transboundary river management. Engaged in initiatives like the **BlueMed Research and Innovation Initiative**, focusing on sustainable Mediterranean water use. Advocates for the integration of water policies into regional climate strategies. Increasing urban water demand and climate-induced desertification.

Botswana

A landlocked country in Southern Africa with severe water scarcity and reliance on shared river basins. Member of the **Southern African Development Community (SADC)**, advocating for equitable water sharing. Actively supports the **Orange-Senqu River Commission (ORASECOM)** for transboundary water cooperation. Focuses on improving rural water access through public-private partnerships. Dependence on rain-fed agriculture and vulnerability to prolonged droughts.

Jordan

Among the most water-scarce countries globally. Faces immense pressure from hosting millions of refugees, straining water resources further. Member of the **Jordan River Basin Initiative**, advocating for transboundary water sharing. Promotes innovative solutions like wastewater reuse and large-scale desalination projects (e.g., the **Red Sea-Dead Sea Project**). Over-extraction of groundwater resources. Rising water demand due to population growth and urbanization.

V. Potential Solutions

Integrated Water Resources Management (IWRM)

A comprehensive approach to managing water resources by considering social, economic, and environmental needs. Establishing national frameworks for managing water resources holistically. Coordinating across sectors such as agriculture, energy, and urban development. The EU's Water Framework Directive, which promotes basin-wide management of water resources is a good example.

Innovative Water Technologies

Leveraging advanced technologies to enhance water efficiency and accessibility.

Desalination: Converting seawater into freshwater using energy-efficient technologies (e.g., reverse osmosis).

Wastewater Treatment and Reuse: Recycling wastewater for agricultural and industrial use, reducing demand on freshwater resources.

Smart Water Systems: Using IoT and AI to monitor and manage water distribution and consumption.

Israel's large-scale adoption of drip irrigation and wastewater reuse systems for example.

Transboundary Water Cooperation

Promoting peaceful and equitable sharing of water resources across borders. Establishing legal frameworks and agreements for shared river basins and aquifers. Strengthening institutions like

river basin commissions. The Nile Basin Initiative, fostering cooperation among Nile River countries for example.

Improving Water Governance

Ensuring transparent, inclusive, and effective decision-making in water management. Decentralizing water management to empower local communities, enhancing regulatory frameworks to prevent over-extraction and pollution, and tackling corruption in water-related infrastructure projects. South Africa's Water Tribunal system ensures accountability in water disputes is a notable example.

Scaling Financial Investments

Increasing funding for water and sanitation infrastructure, particularly in low-income regions. Mobilizing international financing mechanisms such as the **Green Climate Fund (GCF)** and **World Bank Water Projects**. Encouraging public-private partnerships (PPPs) to fund large-scale projects. **Notable Example**: Botswana's PPP models for rural water supply systems.

Promoting Nature-Based Solutions (NBS)

Using ecosystems to address water challenges sustainably. Protecting and restoring wetlands to act as natural water filters. Implementing afforestation programs to reduce soil erosion and enhance groundwater recharge. New Zealand's use of wetland systems to improve water quality in agricultural areas for example.

Empowering Marginalized Communities

Ensuring that vulnerable populations have equitable access to water and sanitation services. Including indigenous practices and local knowledge in water management. Implementing gender-sensitive approaches to ensure women's participation in water governance. The **One WaSH National Programme** in Ethiopia targets underserved rural communities.

Climate-Resilient Water Management

Adapting water systems to withstand climate change impacts like droughts and floods. Building flood-resistant infrastructure and reservoirs. Enhancing early warning systems for extreme weather events. Denmark’s investment in climate-adaptive urban water systems is a good example of this.

VI. Further Reading

https://www.scootle.edu.au/ec/search?accContentId=ACHGK040

https://www.unicef.org/wash/water-scarcity

https://water.org/

VII. Works Cited

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