

# Environmental Council

## The Question of Preventing Water Scarcity in LEDC Countries

Head Chair: Sothea Tan

Deputy Chair: Tuky (Qiqi) Shen

Assistant Chair: Pisey Lim



**NORTHBRIDGE INTERNATIONAL SCHOOL**  
**CAMBODIA**  
A NORD ANGLIA EDUCATION SCHOOL

WELCOME



Nord Anglia SEAME&I REGIONAL  
Model United Nations 2024

# Contents

Introduction .....	2
Definition of Key Terms .....	2
Background Information .....	2
Current Situation .....	3
Major Parties involved and their views .....	3
Timeline of Relevant Events .....	4
Related UN Treaties and Events .....	6
Previous Attempts to solve the issue .....	8
Possible Solutions .....	9
Suggested Reading .....	10
Bibliography .....	12

## Introduction

In an era marked by unprecedented global challenges, the issue of water scarcity stands out as a pervasive threat to the sustainable development of Less Economically Developed Countries (LEDCs). The complexities surrounding water scarcity in LEDCs, aim to elucidate the root causes, assess the current situation, and propose actionable recommendations for effective prevention and mitigation strategies.

## Definition of Key Terms

### Scarcity

The state of being in short supply; shortage. (Oxford Languages)

### LEDCs

Less economically developed countries. LEDC claimed countries are relatively poor with a lower life expectancy as well as a higher death rate due to poor health care.

### Desertification

The process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture. (Natalie Koch, 2022)

### Water Security

The capacity of a society to have enough quality water for survival and carrying out different productive activities.

### Disparity

A lack of equality in level or treatment.

## Background Information

As we embark on this examination, it is crucial to recognize that water scarcity is not merely an environmental challenge but a multifaceted crisis with far-reaching implications for the socio-economic fabric of LEDCs. The scarcity of water resources intertwines with existing vulnerabilities, hindering progress and amplifying disparities within and among nations.

Socio-economic factors play a pivotal role in exacerbating water scarcity in LEDCs. High levels of poverty, inadequate infrastructure, and limited access to education contribute to inefficient water use practices, further straining already limited resources. The unequal distribution of wealth and resources intensifies the impact on marginalized communities, perpetuating a cycle of vulnerability that undermines sustainable development efforts.

Simultaneously, environmental pressures, including climate change and deforestation, exert profound effects on water availability. Unpredictable weather patterns, prolonged droughts, and extreme weather events disrupt traditional water sources, disproportionately affecting LEDCs that lack the resilience and adaptive capacities of their more developed counterparts.

The intricate relationship between environmental degradation and water scarcity necessitates a holistic approach to address these interconnected challenges. Moreover, geopolitical considerations add a layer of complexity to the issue. Competition for water resources can escalate tensions between neighbouring nations, exacerbating regional instability and hindering collaborative efforts. Effective solutions must transcend political boundaries, fostering international cooperation and diplomacy to ensure equitable access to water and promote shared responsibility.

## Current situation:

The current situation of water scarcity in LEDCs is underscored by ongoing challenges in specific regions. For example, countries in Sub-Saharan Africa, such as Ethiopia and Sudan, are grappling with the dual burden of socio-economic constraints and climate change-induced disruptions. Insufficient infrastructure and limited resources hinder water management efforts, while recurrent droughts exacerbate water scarcity, impacting agricultural practices and food security.

In the Middle East, nations like Yemen and Syria face severe water stress exacerbated by political instability. Ongoing conflicts contribute to the degradation of water infrastructure, compromising access to clean water for millions of people. The situation in Haiti, a Caribbean nation, also reflects the vulnerability of LEDCs to environmental events. Recent hurricanes have not only disrupted water sources but have also intensified the risk of waterborne diseases.

Current events highlight the urgency of addressing water scarcity in LEDCs. The United Nations' Water Action Decade, initiated in 2018, underscores the global commitment to achieving water-related Sustainable Development Goals (SDGs) by 2030. Concerted efforts are needed to translate these commitments into tangible actions, leveraging international cooperation and resources to address the specific challenges faced by LEDCs. As the world grapples with the ongoing impacts of climate change and socio-economic disparities, proactive measures are essential to ensure equitable access to clean water and build resilience in the face of evolving environmental and geopolitical dynamics.

## Major Parties involved and their views

### United Nations:

International organizations, led by United Nations agencies such as UN-Water, UNICEF, and the World Health Organization (WHO), play a pivotal role in addressing water scarcity globally. These entities coordinate efforts, advocate for sustainable water practices, and align initiatives with the United Nations Sustainable Development Goals, particularly Goal 6 focused on clean water and sanitation. Their contributions encompass research, policy guidance, and financial support, aimed at enhancing the resilience of Less Economically Developed Countries (LEDCs) to water-related challenges.



## United States

The United States with an advanced economy actively contributes to combating water scarcity in LEDCs. It provides aid such as technological expertise and policy support. Their involvement aims to strengthen infrastructure, improve water management practices, and alleviate socio-economic constraints contributing to water scarcity. Collaborative efforts between advanced economies and LEDCs foster a holistic approach to addressing the multifaceted challenges associated with water scarcity.

## Water.org:

Water.org is a global Non-Profit Organization that started in 2009 and has been actively working to bring water and sanitation to the world as well as make water safe, accessible and cost-effective for everyone. Operating directing in LEDCs, Water.Org is instrumental in implementing practical solutions and community engagement.

## Timeline of Relevant Events

Date	Description
1950s-1970s	Rapid population growth, urbanization, and industrialization contribute to increased water demand, leading to the early signs of water stress in various regions globally.
1972	The United Nations Conference on the Human Environment in Stockholm addresses environmental issues, including concerns about water quality and scarcity.
1972-1987	The Aral Sea crisis in Central Asia begins, as excessive irrigation diverts water from the Aral Sea for agriculture, resulting in a significant reduction in its size and severe environmental consequences.
1980s-1990s	Water scarcity becomes more pronounced in the Middle East, particularly in countries like Yemen and Syria, as population growth, inefficient agricultural practices, and political instability exacerbate the issue.
1990s-2000s	Sub-Saharan Africa faces heightened water stress, with recurring droughts, inadequate infrastructure, and limited access to safe drinking water contributing to increased water scarcity in countries like Ethiopia and Sudan.
1992	The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro establishes the Commission on Sustainable Development, emphasizing the need for sustainable water management.

2000	The Millennium Development Goals (MDGs) include a target to reduce by half the proportion of people without sustainable access to safe drinking water by 2015, reflecting a global commitment to addressing water scarcity.
2000s-2010s	The ongoing depletion of groundwater resources in India raises concerns about water scarcity, particularly in agricultural regions heavily dependent on irrigation.
2010	The United Nations General Assembly declares access to clean water and sanitation a human right, recognizing the importance of water in the realization of all human rights.
2015	The Sustainable Development Goals (SDGs) are adopted, with Goal 6 specifically addressing clean water and sanitation, aiming to ensure the availability and sustainable management of water for all by 2030
2018	The United Nations launches the Water Action Decade (2018–2028) to accelerate efforts towards meeting water-related SDGs, recognizing the increasing severity of water scarcity challenges globally.
2020	The COVID-19 pandemic underscores the critical importance of access to clean water for sanitation and hygiene, especially in vulnerable communities facing heightened water scarcity.
2021	The UN World Water Development Report emphasizes the value of water and the need for improved water management practices globally, recognizing the severe impacts of water scarcity on social, economic, and environmental aspects.

## Related UN Treaties and Events

- **United Nations Framework Convention on Climate Change (UNFCCC):**

The UNFCCC plays a critical role in addressing the intersection of climate change and water resources. Recognizing that climate change significantly impacts water availability, the Annual Conference of Parties (COP) meetings under the UNFCCC framework discuss adaptation and mitigation strategies related to water. These discussions aim to develop global initiatives that address the challenges posed by changing precipitation patterns, extreme weather events, and shifts in hydrological cycles, all of which have direct implications for water scarcity and sustainable water management.

- **The United Nations Convention to Combat Desertification (UNCCD):**

The UNCCD focuses on combating desertification, land degradation, and drought, with a keen understanding of their impact on water resources. By emphasizing sustainable land management practices, the convention addresses the root causes of water scarcity in affected regions. UNCCD's Conference of Parties (COP) meetings serves as a platform to discuss and implement strategies for mitigating the impact of land degradation on water resources, fostering a holistic approach to environmental sustainability.

- **The United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (UN Watercourses Convention):**

The UN Watercourses Convention provides a comprehensive framework for the utilization and protection of international watercourses. Emphasizing the principles of equitable and reasonable use, the convention addresses issues related to shared water resources between countries. Key discussions surrounding the convention, initiated in 1997, focus on its ratification and implementation, seeking to establish a cooperative approach to international water management that respects the needs and rights of all involved parties.

- **World Water Day:**

Recognizing the fundamental importance of freshwater resources, World Water Day serves as an annual UN observance day, advocating for sustainable water management. Celebrated globally on March 22nd each year, the event addresses various water-related issues, raising awareness and promoting the importance of equitable access to water. With each year dedicated to a specific theme, World Water Day provides a platform for coordinated efforts to tackle different dimensions of water scarcity and encourage responsible water use.

- **International Decade for Action "Water for Sustainable Development" (2018-2028):**

Launched by the United Nations, the International Decade for Action "Water for Sustainable Development" (2018-2028) is a comprehensive initiative to accelerate progress toward achieving water-related Sustainable Development Goals (SDGs). This ongoing decade involves a series of activities, events, and partnerships aimed at promoting sustainable water management, highlighting the interconnectedness of water with various aspects of development, and fostering a global commitment to addressing water scarcity challenges.

- **The 2030 Water Resources Group (2030 WRG):**

The 2030 Water Resources Group (2030 WRG), facilitated by the World Bank, represents a collaborative effort involving public, private, and civil society entities. The group focuses on mobilizing action to address water scarcity and promote sustainable water management practices. Through ongoing initiatives and partnerships, the 2030 WRG contributes to innovative solutions and strategies aimed at ensuring equitable access to water resources and building resilience against the challenges posed by water scarcity.

- **Global High-Level Panel on Water and Peace:**

Recognizing the potential for water-related conflicts, the Global High-Level Panel on Water and Peace was initiated by the UN Secretary-General. This panel aims to prevent and resolve water-related conflicts by promoting cooperation over shared water resources. Key outcomes of the panel include the release of an outcome document and recommendations for improving water-related peacebuilding efforts. The initiative underscores the importance of addressing water scarcity as a factor in maintaining global peace and security.



## Previous Attempts to solve the issue

### Integrated Water Resources Management (IWRM):

Integrated Water Resources Management (IWRM) represents a comprehensive approach to water management that recognizes the interconnected nature of water resources. IWRM emphasizes coordinated planning to ensure the sustainable use of water. This approach seeks to address water scarcity by fostering a holistic understanding of water systems and their intricate relationships with various stakeholders.

### Millennium Development Goals (MDGs):

The Millennium Development Goals, particularly Goal 7, aimed at improving access to clean water and sanitation globally. Between 2000 and 2015, significant progress was made, with millions gaining access to improved water sources. The MDGs highlighted the importance of international cooperation and targeted efforts in addressing the fundamental issue of water scarcity, laying the groundwork for subsequent sustainable development initiatives.

### Global Water Partnership (GWP):

The Global Water Partnership (GWP) serves as a collaborative platform promoting Integrated Water Resources Management (IWRM) principles. By facilitating cooperation among stakeholders, the GWP encourages the integration of water management into national development plans. This initiative recognizes the need for coordinated efforts to address water scarcity challenges and underscores the importance of comprehensive, stakeholder-inclusive strategies.

### United Nations Decade for Water and Sanitation (1981-1990):

The United Nations Decade for Water and Sanitation, spanning from 1981 to 1990, aimed to raise awareness and mobilize resources for water and sanitation projects globally. This initiative played a crucial role in directing attention and funding towards water-related issues during the designated decade, contributing to increased investment and awareness surrounding water scarcity.

### Rainwater Harvesting Projects:

Rainwater harvesting projects involve the collection and storage of rainwater for various uses, aiming to reduce reliance on scarce water sources. Implemented at local and regional levels, these initiatives contribute to improved water availability and sustainable water management by harnessing natural and underutilized resources.

## Possible Solutions

### **Investment in Water Infrastructure:**

Upgrading and expanding water infrastructure, including efficient water supply systems, wastewater treatment plants, and distribution networks, enhances the overall resilience and capacity to manage water resources effectively.

### **Rainwater Harvesting and Greywater Recycling:**

Encouraging rainwater harvesting at individual and community levels, along with recycling greywater (wastewater from domestic activities), can supplement traditional water sources and alleviate pressure on freshwater reserves.

### **Agricultural Water Efficiency:**

Promoting water-efficient agricultural practices, such as drip irrigation and precision farming, minimizes water wastage in agriculture. Precision agriculture technologies help optimize water use based on crop needs and local conditions.

### **Wastewater Treatment and Reuse:**

Expanding wastewater treatment facilities and promoting the safe reuse of treated wastewater for non-potable purposes, such as irrigation and industrial processes, reduces the demand on freshwater sources.

### **Educational Campaigns and Community Engagement:**

Raising awareness about water conservation through educational campaigns and community engagement fosters a culture of responsible water use. Empowering individuals and communities to implement water-saving practices is crucial.

### **Water Action Decade (2018-2028):**

Launched by the United Nations, the ongoing Water Action Decade (2018-2028) seeks to accelerate global efforts towards meeting water-related Sustainable Development Goals. This decade-long initiative emphasizes the implementation of sustainable water management practices, enhancing resilience to water-related challenges, and fostering international collaboration to address the pressing issue of water scarcity.

### **2030 Water Resources Group (2030 WRG):**

The 2030 Water Resources Group (2030 WRG), facilitated by the World Bank, represents a public-private collaboration dedicated to mobilizing action on water scarcity. This initiative focuses on innovative solutions, public-private partnerships, and sustainable water management practices. By bringing together diverse stakeholders, the 2030 WRG aims to address the complexities of water scarcity through collaborative and forward-thinking strategies.

## Suggested Reading

"Water, Ecosystems, and Poverty: A Framework for Understanding the Links between Poverty and the Environment" by World Bank:

This report from the World Bank provides a comprehensive framework for understanding the intricate links between water, ecosystems, and poverty, with a focus on developing countries.

<https://www.iied.org/sites/default/files/pdfs/migrate/G02519.pdf>

"Troubled Waters: Religion, Ethics, and the Global Water Crisis" edited by Gary Chamberlain:

This collection of essays explores the ethical dimensions of the global water crisis, examining the role of religion and ethics in addressing water-related challenges in developing countries.

[https://books.google.com.kh/books/about/Troubled\\_Waters.html?id=oAHhdczi9CcC&redir\\_esc=y](https://books.google.com.kh/books/about/Troubled_Waters.html?id=oAHhdczi9CcC&redir_esc=y)

"Water Politics: Governing Our Most Precious Resource" by Tom Perreault:

The book delves into the politics of water governance, including issues related to access, distribution, and management, with a focus on the implications for developing countries.

"Water and Post-Conflict Peacebuilding" by Erika Weinthal, Jessica Troell, and Mikiyasu Nakayama:

This book examines the complex relationship between water resources and post-conflict peacebuilding, with case studies from developing regions, providing insights into the challenges and opportunities.

### Websites

World Bank - Water:

The World Bank's water page provides insights into global water issues, including resources specific to developing countries and projects aimed at addressing water challenges.

United Nations Development Programme (UNDP) - Water Governance:

UNDP's water governance page offers information on projects and initiatives focused on improving water management in developing countries.

World Health Organization (WHO) - Water, Sanitation, and Health:

The WHO provides resources on water, sanitation, and health, with a focus on global efforts to improve water-related conditions, particularly in developing regions.

Water.org:

#### Water.org:

Water.org is a non-profit organization dedicated to providing access to safe water and sanitation in developing countries. The website offers insights into their projects, impact, and ways to get involved.

#### Global Water Partnership (GWP):

GWP focuses on promoting integrated water resources management. Their website provides information on projects, publications, and resources related to water management in developing regions.

**The Water Project:** This organization works to provide clean, safe water in sub-Saharan Africa. Their website offers project information, stories, and resources on water-related challenges in developing countries.

#### International Water Management Institute (IWMI):

IWMI is a research organization that focuses on sustainable water use in agriculture. Their website provides publications, research findings, and tools relevant to water management in developing regions.

#### WaterAid:

WaterAid is an international non-profit organization working to provide clean water, hygiene, and sanitation. The website offers insights into their projects, campaigns, and resources.

#### United Nations Environment Programme (UNEP) - Freshwater:

##### Freshwater:

UNEP's freshwater page provides information on global freshwater issues, including resources on sustainable water management in developing countries.

##### The 2030 Water Resources Group (2030 WRG):

##### 2030 WRG:

Facilitated by the World Bank, 2030 WRG focuses on mobilizing action on water scarcity. The website offers insights into their initiatives, reports, and partnerships.

## Bibliography

The Human Right to Water and Sanitation Media Brief 1 UN-Water Decade Programme on Advocacy and Communication and Water Supply and Sanitation Collaborative Council. [www.un.org/waterforlifedecade/pdf/human\\_right\\_to\\_water\\_and\\_sanitation\\_media\\_brief.pdf](http://www.un.org/waterforlifedecade/pdf/human_right_to_water_and_sanitation_media_brief.pdf).

”Koch Quoted in BBC Article on Dubai, Desertification.” Maxwell School, 27 Jan. 2022, [www.maxwell.syr.edu/news/article/koch-quoted-in-bbc-article-on-dubai-desertification#:~:text=Desertification%20is%20the%20process%20by.](http://www.maxwell.syr.edu/news/article/koch-quoted-in-bbc-article-on-dubai-desertification#:~:text=Desertification%20is%20the%20process%20by.)

Water.org. “Water Crisis - Learn about the Global Water Crisis.” Water.org, 2023, [water.org/our-impact/water-crisis/](http://water.org/our-impact/water-crisis/).

World Health Organization. “Drinking Water.” World Health Organization, 13 Sept. 2023, [www.who.int/news-room/fact-sheets/detail/drinking-water](http://www.who.int/news-room/fact-sheets/detail/drinking-water).

United Nations. “Water Scarcity.” UN-Water, United Nations, 2021, [www.unwater.org/water-facts/water-scarcity](http://www.unwater.org/water-facts/water-scarcity).

United Nations. “Water.” United Nations, 2019, [www.un.org/en/global-issues/water](http://www.un.org/en/global-issues/water).  
---. “Water – at the Center of the Climate Crisis.” United Nations, 2022, [www.un.org/en/climatechange/science/climate-issues/water](http://www.un.org/en/climatechange/science/climate-issues/water).

The World Bank. “Water.” World Bank, 2019, [www.worldbank.org/en/topic/water](http://www.worldbank.org/en/topic/water).  
“Wbwaterdata - World Bank Group - Waterdata.” Wbwaterdata.org, [wbwaterdata.org/](http://wbwaterdata.org/).  
“Africa.” World Bank, 2017, [www.worldbank.org/en/region/afr](http://www.worldbank.org/en/region/afr).

“Accelerating Change to Solve the Water Crisis.” World Bank, [www.worldbank.org/en/news/immersive-story/2023/03/22/accelerating-change-to-solve-the-water-crisis](http://www.worldbank.org/en/news/immersive-story/2023/03/22/accelerating-change-to-solve-the-water-crisis).

“International Water Management Institute (IWMI) : Home Page.” International Water Management Institute (IWMI), [www.iwmi.cgiar.org/](http://www.iwmi.cgiar.org/).

“IWMI’s Water Scarcity Map for the Comprehensive Assessment of Water Management in Agriculture (CA).” International Water Management Institute (IWMI), [www.iwmi.cgiar.org/what-we-do/impact-assessment/outcome-stories/outcome-stories-2007/iwmis-water-scarcity-map-for-the-comprehensive-assessment-of-water-management-in-agriculture-ca/](http://www.iwmi.cgiar.org/what-we-do/impact-assessment/outcome-stories/outcome-stories-2007/iwmis-water-scarcity-map-for-the-comprehensive-assessment-of-water-management-in-agriculture-ca/).





**NISCMUN**

**Nord Anglia SEAME&I REGIONAL  
Model United Nations 2024**