

Student Leadership Conference on Development at the United Nations
SLCD@UN2019

Ensuring Available and Sustainable Water and Sanitation for All

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“Safe water and adequate sanitation underpin poverty reduction, economic growth and healthy ecosystems. They contribute to social well-being, inclusive growth and sustainable livelihoods.

But, growing demands for water, coupled with poor water management, have increased water stress in many parts of the world. Climate change is adding to the pressure – and it is running faster than we are.

- **António Guterres, UN Secretary-General**
Remarks at Launch of International Decade for Action
"Water for Sustainable Development" 2018-2028

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ABOUT THE CONFERENCE

Background

The Student Leadership Conference on Development is in its 10th year. Created in 2010, to support the Millennium Development Goals, the conference looks to bring students together from around the world to tackle real and pressing development issues facing our world today. This year, the conference will be on Water and Sanitation and the Sustainable Development Goals (SDGs), using support resources from the United Nations, the Sustainable Development Solutions Network, NGOs, and other credible sources.

Within the theme of Water and Sanitation and the Sustainable Development Goals, we will focus on three major areas –Resource Management and Innovation, Infrastructure, and Education. The main Goal on which the conference will center is *SDG #6 -Ensure availability and sustainable management of water and sanitation for all.*ⁱ Access to safe water and sanitation and sound management of freshwater ecosystems are essential to human health and to environmental sustainability and economic prosperity.

In December 2017, United Nations Member States adopted United Nations General Assembly resolution 71/222 on an International Decade for Action on ‘Water for Sustainable Development’ 2018-2028. The Water Action Decade will accelerate efforts towards meeting water-related

challenges, including limited access to safe water and sanitation, increasing pressure on water resources and ecosystems, and an exacerbated risk of droughts and floods.

Conference Objectives and Timeline:

Students in participating countries worldwide will come together on **in February 2019** to complete a Plan of Action that will be developed in the weeks and months leading up to the conference in each of their communities. This Plan of Action will be a collaboration across cultures with real, practical ideas that can be implemented by conference participants.

This Plan, if approved by a majority of the participants, will be taken back to their schools and communities and put into action. Students will be asked to do community work on March 22, World Water Day. They also will reconvene at the end of the school year to share which parts of the Plan have been undertaken in their home countries.

Conference Timeline:

Fall 2018-Winter2019:	Various GEM programs and interactions with youth groups and individuals in partial preparation for SLCD@UN. Preparation via on-line work and training with students
February 2019:	Student Leadership training in New York City, NY
February 2019:	Student Leadership Conference on Development at the UN
March 22, 2019	World Water Day
Spring 2019:	(1) End of Year Videoconference to share accomplishments with each other on Plan ofAction and(2) formal presentation of the Plan of Action to the United Nations in New York.

Sub Theme Selections:

Leaders and delegates start preparations by choosing one of the three subthemes and prepare to be knowledgeable about it and involved in finding solutions to problems associated with the Sub Theme. This year's Sub Theme Topics are: (a) Water and Sanitation Resource Management and Innovation (b) Water and Sanitation Infrastructure and (c) Water Pollution. Special background documents will be available to help participants with their work.

As previously mentioned, this year the Student Leadership Conference on Development will be focusing on Sustainable Development Goal (SDG) #6 - Ensure availability and sustainable management of water and sanitation for all. Each of the subthemes tie into specific targets outlined in SDG #6 (there may be some overlap with other SDGs, which students are welcome to explore). Some of SDG targets are found on pages 3&4.

How to Participate in the Conference:

Student Leaders are usually selected based on a school recommendation. Student Leaders can also be selected through participation in the online groups, or by contacting GEM directly. Student Leaders run the conference. The roles of leaders will be determined in New York City in February 2019 by the leadership team in conjunction with GEM staff.

Levels of Participation:

Students can participate at the following levels:

1. International Student Leaders at the United Nations
2. Regional Student Leaders at the videoconferencing sites (Chosen by host sites)
3. Voting delegates at the United Nations or videoconferencing sites
4. Online contributors via webcast and twitter feed.

About the Sustainable Development Goals

Former UN Secretary-General Ban Ki-moon said the new Sustainable Development Goals *“Encompass a universal, transformative and integrated agenda that heralds an historic turning point for our world. This is the people’s agenda, a plan of action for ending poverty in all its dimensions, irreversibly, everywhere and leaving no one behind. It seeks to ensure peace and prosperity and forge partnerships with people and planet at the core. The integrated, interlinked and indivisible 17 Sustainable Development Goals are the people’s goals and demonstrate the scale, universality and ambition of this new agenda.”*



Goals 1 – 6 are a continuation of the Millennium Development Goals. Goals 7 – 16 are expanded areas of sustainable development. Goal 17 is the developed world working with the developing world to achieve the goals.

Within the goals are 169 targets to be met. The proposed targets under Goal One, for example, include reducing, by at least half, the number of people living in the poverty by 2030 and eradicating extreme poverty (people living on less than \$1.25 a day). Details on all the goals with targets and indicators can be found at the Sustainable Development Goals Knowledge Platform ⁱⁱ.

Regarding Indicators, there are 229. They are an added detail to help see where we are related to achieving the goals. For example, SDG1 looks at population, and also separately, the working poor. The Indicators look at poverty related to sex, age, employment status, and geographical location. This helps to

show progress or lack of progress. It is real data to help make all of us see if we are on track to reach the goal as stated.

Become more aware about these goals and feel good about your world being better in the future. The SDGs are an important happening in your life. Be part of the solution to achieving them.

Key Sustainable Development Goal Targets for the Conferenceⁱⁱⁱ:

SDG#6 -Ensure availability and sustainable management of water and sanitation for all

6.1 - By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.2 - By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

6.3 - By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

6.4 - By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.5 - By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 - By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.a - By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b - Support and strengthen the participation of local communities in improving water and sanitation management

SDG # 11 –Sustainable Cities and Communities

11.5 - By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.b - By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

SDG#12 – Responsible Consumption and Production

12.5 - By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.8 - By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

SDG #14 – Life Below Water

14.2 - By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

SDG #15 –Life on Land

15.1 - By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.4 - By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

SDG # 17 – Partnerships for the Goals

17.7 - Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed

17.9 - Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation

Introduction to Water and Sanitation:

“We are not doing enough, collectively, to achieve SDG 6 on water.... We are putting tremendous pressure on our environment, including water sources.

Climate change is making the water shortage worse – from droughts to torrential rainfall, our water sources and systems are being destroyed.

Water pollution is turning rivers into hotbeds of disease.... over 80% of the world’s wastewater is released without treatment.

This is not sustainable. We lamented this at COP 23 in Bonn, at UNEA in Nairobi. But we need to take urgent action.”

- Statement by H.E. Mr. Miroslav Lajčák, President of the 72nd Session of the UN General Assembly, at “Science for Water” – an event convened by UNESCO and Joint Research Centre of the European Commission

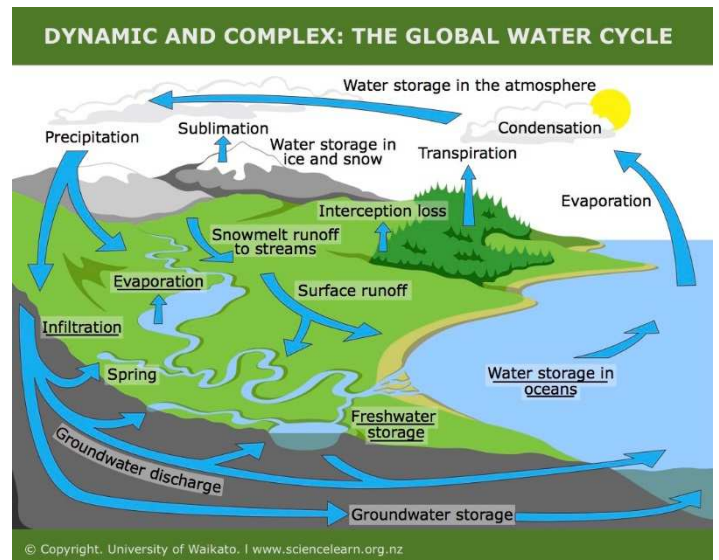
Why is water important?

Water is the only consistent and absolute requirement for life on Earth. We all drink water, bathe in water, cook with water, and are made of water. Water existed in our solar system before the formation of the sun, and can be found on our Moon, Mars, Mercury, comets, and on other moons.^{iv} Water is a solvent, a solute, a reactant, and a catalyst. The water molecule (H₂O) is the second most common molecule in the Universe, after hydrogen. There are 100 times as many water molecules in our bodies than the sum of all the other molecules put together. Humans can't live for more than a few days without water.

Cycle of Water:

Water on Earth is a closed system and is in continuous circulation. What affects water in one part of the cycle will eventually impact water everywhere. Pollutants, fertilizers, human waste, animal waste, medical waste - they all end up in the water we use daily.

The water cycle is fueled by the sun through evaporation. Evaporated water becomes clouds, which then forms rain, which flows into rivers and lakes and seeps into groundwater. Climate change intensifies the water cycle. This happens due to an increase in air temperatures, which leads to more water evaporation into the air. Warmer air can hold more water vapor, which then leads to more intense rainstorms, causing major problems like extreme flooding in coastal communities around the world.^v



Facts and Figures from UNDP^{vi}

Water scarcity affects more than **40 percent** of the global population, and that figure is projected to rise.

2.6 billion people have gained access to improved drinking water sources since 1990, but 663 million people are still without.

Each day, nearly **1,000 children** die due to preventable water and sanitation-related diseases.

Women in sub-Saharan Africa collectively spend about **40 billion hours** a year collecting water. This significantly impacts their employment opportunities.

2.4 billion people worldwide do not have access to basic sanitation services like toilets or *latrines*.

80 percent of wastewater from human activities is discharged into waterways without any pollution removal.

Water in Everyday Life:

How much water do you use each day? What are the hidden uses of water?

The U.S. had the world's highest **per capita** water footprint, at 2,842 cubic meters per year (or 2056 gallons per day). Meat consumption accounts for 30 percent of the American figure - to produce one pound of beef requires 1,799 gallons of water (15,111 liters/kg). Sugar consumption is responsible for another 15 percent - to produce one pound of sugar requires 212 gallons of water (1,800 liters/kg). In India, where fewer

people consume as much meat, the individual footprint is 1,089 cubic meters a year (or 788 gallons per day). The global annual average per capita is 1,385 cubic meters (1001 gallons per day).^{vii}

Irresponsible and Wasteful Water Practices:

There are commercial and industrial ways humans waste water, as well as personal ways that humans waste water.

Irrigation techniques and practices are the largest culprit of water waste. Agriculture uses 70 per cent of the available freshwater globally. Around the world, most farms rely on the technique of flood irrigation. This is irresponsible in two ways. First, it is a massive waste of water as the excess runs off into nearby waterways. Second, the runoff can contain pesticides, chemicals, and fertilizers that can cause **eutrophication** in rivers, lakes, and oceans.

Agriculture also wastes water by growing crops and raising livestock in regions that can't support the water needs of these plants and animals. Farmers can switch to more sustainable crops, or look at the grow cycles of plants to pinpoint the times that using more water will increase yield.

Manufacturing can also be a large source of water waste. Water is used in a variety of ways during manufacturing. Water is used as a coolant, lubricant, steam, cleaner, transportations system (think apples moving through a processing plant), reactant, solvent, and in the product itself (as in soft drinks or soap). There are ways to reduce or eliminate the use of water in most of these areas, with some companies already moving away from the most wasteful practices.

Individuals waste water in many ways, both inside and outside of the home. Lawns and gardens are a major waster of water. Lawns and gardens often eschew native plants and grasses, which will require more water to maintain. Inside the home, water is wasted through the disposal of **greywater**. Instead of allowing this water to go down the drain, it can be used to flush toilets or water plants. Other simple water wastes inside the house include inefficient toilets, long showers, running dishwashers/washing machines when they are not full, leaving the water running while brushing teeth and washing hands, and leaks.

Water and Sanitation Today:

The United Nations Report of the Secretary General on the Progress towards the Sustainable Development Goals in 2015

- 6.6 billion people (over 90 per cent of the world's population) used improved drinking water sources
- 4.9 billion people (over two thirds of the world's population) used improved sanitation facilities.

According to the report, those without access to improved drinking water and sanitation live predominantly in rural areas. In order to achieve universal access to basic sanitation and end the unsafe practice of open defecation, substantial progress will be needed in the rural areas of Central and Southern Asia, Eastern and South Eastern Asia, and sub Saharan Africa.^{viii}

International Efforts to Improve Access to Water and Sanitation

On 28 July 2010, through Resolution 64/292, the United Nations General Assembly explicitly recognized that access to water and sanitation is a human right. The Assembly recognized the right of every human being to have access to sufficient water for personal and domestic uses (50-100 liters of water per person, per day), which must be safe, acceptable and affordable (water costs should not exceed 3 per cent of household income), and physically accessible (the water source has to be within 1,000 meters of the home and collection time should not exceed 30 minutes).^{ix}

Annually, there are two UN international observances on water and sanitation: World Water Day, 22 March and World Toilet Day, 19 November. Each day is marked by a public campaign which is about raising awareness of the issues, focusing attention on a particular theme, and inspiring action.

The International Decade for Action, 'Water for Sustainable Development', will begin on World Water Day, 22 March 2018, and end on World Water Day, 22 March 2028. The Decade is about accelerating efforts towards meeting water-related challenges, including limited access to safe water and sanitation, increasing pressure on water resources and ecosystems, and an exacerbated risk of droughts and floods.

Glossary:

COP21 - The Paris Climate Conference is officially known as the 21st Conference of the Parties (or "COP") to the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations body which is responsible for climate and based in Bonn, Germany. The Conference will also serve as the 11th Meeting of the Parties to the Kyoto Protocol.

The COP meets each year to take decisions that further the implementation of the Convention and to combat climate change. COP21 will take place at the same time as CMP11, the 11th meeting of the Parties to the Kyoto Protocol, which oversees the implementation of the Kyoto Protocol and the decisions made to increase its effectiveness.

Eutrophication - excessive richness of nutrients in a lake or other body of water, frequently due to runoff from the land, which causes a dense growth of plant life and death of animal life from lack of oxygen.

Greywater (also spelled graywater) - all wastewater generated in households or office buildings from streams without fecal contamination, i.e. all streams except for the wastewater from toilets. Sources of greywater include, e.g. sinks, showers, baths, clothes washing machines or dish washers.

Latrine - a toilet or outhouse, especially a communal one

Per Capita - for each person; in relation to people taken individually.

Resources:

Sustainable Development Solutions Network - <http://unsdsn.org/>

United Nations Water Action Decade - <http://www.wateractiondecade.org/about/>

High Level Political Forum on Sustainable Development - <https://sustainabledevelopment.un.org/hlpf>

Sustainable Development Knowledge Platform SDG #6- <https://sustainabledevelopment.un.org/sdg6>

Remarks from the UN Secretary General at Launch of International Decade for Action "Water for Sustainable Development" 2018-2028

<https://www.un.org/sg/en/content/sg/speeches/2018-03-22/decade-action-water-sustainable-development-remarks>

Progress towards the Sustainable Development Goals, Report of the Secretary 2017

http://www.un.org/ga/search/view_doc.asp?symbol=E/2017/66&Lang=E

Sustainable Development Knowledge Platform Water and Sanitation -

<https://sustainabledevelopment.un.org/topics/waterandsanitation>

United Nations Development Programme – Water and Sanitation -

<http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-6-clean-water-and-sanitation.html>

National Oceanic and Atmospheric Administration, U.S. Department of Commerce

Carbon Cycle - <http://www.noaa.gov/resource-collections/carbon-cycle>

Climate Education <http://www.noaa.gov/resource-collections/climate-education-resources>

Climate Communication Science and Outreach - <https://www.climatecommunication.org/>

ⁱ<https://sustainabledevelopment.un.org/sdg6>

ⁱⁱ Sustainable Development Knowledge Platform <https://sustainabledevelopment.un.org/?menu=1300>

ⁱⁱⁱ Sustainable Development Knowledge Platform <https://sustainabledevelopment.un.org/sdgs>

^{iv}<http://www.sciencemag.org/news/2014/09/half-earths-water-formed-sun-was-born>

^v<https://www.climaterealityproject.org/blog/climate-change-impacting-water-cycle>

^{vi}<http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-6-clean-water-and-sanitation.html>

^{vii}<https://www.scientificamerican.com/article/graphic-science-how-much-water-nations-consume/>

^{viii}http://www.un.org/ga/search/view_doc.asp?symbol=E/2017/66&Lang=E

^{ix}<http://www.un.org/en/sections/issues-depth/water/>