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UNDP

Ensuring sustainable solutions to water insecurity in southeast Asia

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Letter from the Chairs

Greetings, Delegates!

We are Minkyo Kim, SuAha Moon, and Hyojin (Josephine) Choi and we would like to welcome you to SJAMUN III's UNDP Committee.

Hello! I am Minkyo Kim, a freshman at SJA Jeju. It is an honor to serve you as head chair for the UNEP committee in SJAMUN III. This would be my third time chairing a GEC conference and my 4th year taking part in MUN. Although I am moderately experienced, I still feel very nervous as a delegate or even when chairing. So, it is natural that many, if not all, of you would be shaking as you reach the podium to give your speech. Whenever you feel like this, just remember that everyone else around you will be feeling exactly the same way, and feel free to take all the time you need to take a deep breath and get ready. I sincerely hope this conference provides you with an opportunity to learn more about the world. See you there!

Hi! I'm SuAha Moon, a sophomore at SJA Jeju and it is my pleasure to serve as deputy chair of UNDP in SJAMUN III. MUN can be challenging and despite all challenges you might face, I would like to encourage all delegates to try their best. I hope all delegates take something from this conference, and have fun throughout the conference.

Hello delegates! My name is Josephine Choi. I am honored to serve as your Associate Chair of the UNDP committee in SJAMUN III. Throughout the conference, I hope to foster active discussions and creative approaches addressing water insecurity in southeast Asia according to your country's policies. To make a productive conference, I highly recommend you to conduct thorough research on past actions of your designated country, enabling you to contribute more effectively and come out with even higher quality resolutions. I am looking forward to watching your passionate speeches!

Please feel free to contact us via the following if you have any inquiries or concerns.

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Committee Introduction

The United Nations Development Programme was established in 1965 to address global development challenges, primarily poverty reduction and the achievement of sustainable development. It was created by merging United Nations Special Fund and United Nations Expanded Programme of Technical Assistance (EPTA), each of which focused on providing funds and technical assistance for economic development. UNDP has conducted crucial actions such as working in 170 different countries/territories, helping to eradicate poverty, reduce inequalities, and to create a sustainable environment.

The committee's primary focus is on helping countries to build and share solutions to the challenges of: reducing poverty and reaching Sustainable Development Goals (SDGs). UNDP works collaboratively with global partners, including national governments, UN agencies, civil society organizations, etc. focus areas also include promoting inclusive economic growth, supporting democratic institutions, and building resilience to natural disasters and climate crises. Member states like Germany, Japan, and the United States play key roles and are major donors and strategic partners of UNDP.

Recently, as global crises have become more interrelated, from pandemics to environmental disasters, UNDP's work has grown even more significant. UNDP's role in addressing these kinds of issues has become more crucial, as it cultivates peace, prosperity, and environmental sustainability. Now, UNDP's approach to development is based on understandings of the interconnectedness between short and long term development, and the need to address the policies, institutions, systems, and processes that can perpetuate poverty, inequality, and vulnerability to disaster/crisis.

Agenda Introduction

Water insecurity in Southeast Asia is caused due to environmental stress and the mismanagement of available resources. Although the region owns significant resources, including major rivers such as the Mekong, Irrawaddy, and Chao Phraya, access to clean water is still limited for over 75 million people.

Economic development has intensified water demand; especially in agriculture and industry, where urban expansion and weak infrastructure have outpaced water services. The over-extraction of groundwater in countries such as Vietnam and Thailand has caused land subsidence and saltwater intrusion. Meanwhile, discharge from industries and runoff from agriculture pollute surface water, harming not only the environment but also public health.

Climate change further destabilizes Southeast Asia's water systems, increasing droughts, floods, and other weather events. These impacts threaten both infrastructure and the sustainable production of food and energy. In transboundary rivers such as the Mekong where the water usage of upstream states directly affects downstream states, the lack of agreements has led to inefficient management, which creates unequal access to water.

South Asia's water insecurity, therefore, is not just a result of climate change and scarcity but of failed governance and cooperation. A sustainable resolution would include a regional framework with data collection, enforceable policies, and collective resource management.

Key Terms

Water Insecurity

Water insecurity, also known as water scarcity, refers to the crisis that people worldwide face due to lack of access to sufficient, safe, and affordable water. It happens when the demand for clean water exceeds the available supply in the region. This could be measured through scales such as Water Insecurity Experiences(WISE) Scales that assess the frequency of water-related problems experienced by people in the region.

Sustainable Water Management

Sustainable water management refers to the utilization of water resources that could sufficiently support the present demand while also not overlooking future generations' demand. As ensuring long-term availability of water resources is crucial, sustainable water management is emphasized in many international development agendas and environmental policies.

Transboundary Water Cooperation

Transboundary water cooperation refers to the international collective action to combat water insecurity beyond international borders. Cooperation between countries is essential when addressing water insecurity issues as management of shared water resources such as rivers may cause disputes between nations.

Water Governance

Water governance refers to political, social, economic, and administrative systems that dictate how water resources are used and managed. Differing from water management, water governance focuses on the overall framework, policies, and decision-making processes on water resources.

Water Infrastructure

Water infrastructure refers to the physical and digital systems that manage water resources by collecting, treating, storing, and distributing water. Water infrastructure also manages wastewater and storm water. Examples of water infrastructure could be dams, pipelines, treatment plants, reservoirs, and digital monitoring systems.

Water-Energy-Food (WEF) Nexus

Water-Energy-Food (WEF) Nexus is an approach emphasizing the interconnectedness between the three essential resources—water, energy, and food—and management required to ensure sustainable development. This approach aims to secure the supply of essential resources by enhancing cooperation and minimizing potential conflicts.

Integrated Water Resources Management (IWRM)

Integrated Water Resources Management (IWRM) is a management approach of water, land, and related resources. It aims to achieve equitable economic and social well-being while also ensuring the long-term sustainability of ecosystems at the same time. It emphasizes a balanced decision-making considering economic efficiency, social equity, and environmental sustainability.

Historical Background

Southeast Asia was one of the territories that were colonized by Spain, Great Britain, and France under colonial rule. Local rulers built vast irrigation systems to protect their plantations and to stave off famine. These systems were unable to cope with industrialization and population growth after independence. However, according to the Asian Development Bank, by 2030, the demand for water will exceed supply by roughly 40 percent in Southeast Asia.

In the late 20th century, rapid urbanization worsened shortages, with cities discharging waste into rivers. Today, about 80% of the Asia-Pacific region's riverwater is polluted. Climate change and the creation of dams caused more dramatic variations in water flow. The Mekong Basin, home to about 65 million people, faced record droughts and high salinity due to climate change.

Historically, humans have wanted and yearned for a good source of water. And because of climate change and global warming, clean water sources are rapidly diminishing. Considering water is one the most essential resource for humans for living, formulating the solution for water insecurity has become very serious. Especially in regions such as Southeast Asia, where many countries have lots of conflicts over transboundary river control, ensuring a solution for water insecurity is urgent.

Current State of Affairs

Water insecurity is an urgent problem in Southeast Asia, specifically in Indonesia and the Philippines, due to uneven levels of water access and distribution, pollution, climate change and rapid urbanization. In relation to climate change and uneven rainfall periods, several regional countries are experiencing devastating flood and drought conditions. This, in return, has limited access to clean water, placing food production, public health, and, even, economic development in danger.

The issue has become more prominent in recent years due to effects of climate change, resulting in longer dry seasons, rising sea levels, etc. As evidenced by the International Panel on Climate Change (IPCC) Sixth Assessment Report, since 2015, Southeast Asia has seen a significant increase in extreme weather, with climate patterns being more unpredictable and longer droughts than in previous decades. As water resources are decreasing and access to clean water is being limited, tensions between countries like China, Laos, Cambodia, and Vietnam have increased due to transboundary river disputes. Especially along the Mekong River, where upstream dam construction and water diversion have reduced water flow to downstream countries.

Nowadays, many professionals mention that the source of water would be the most valuable resource in the next 100 years, surpassing oils and other commodities. And it has already begun. Countries fight for water sources, becoming serious geopolitical conflicts. In regions such as Southeast Asia, Middle east and North Africa, tensions over transboundary regimes are getting more extreme. As a result, devising the water insecurity problem and sorting out who gets the water source would be one of the biggest challenges of the 21st century.

Stances of Parties

Australia

Australia advances in water management and has lots of experience in addressing climate-related water challenges, and as a strong supporter of sustainable water solutions, agencies, like Australian Department of Foreign Affairs and Trade (DFAT), are funding for technical assistance for water security projects in the region. Australia also is accessible to technologies such as efficient irrigation systems, desalination, and water recycling.

Belgium

Belgium also faces challenges related to water because of their high population density, supply being unable to follow demand, uneven resource distribution, and challenges like urban paving preventing groundwater recharge, etc. but Belgium does fund for water security projects through agencies such as Belgian Development Agency.

Brazil

As a country with the most fresh water resources and experience in controlling those systems, Brazil supports sustainable water management globally. Brazil also funds water security projects through Brazil's Cooperation Agency (ABC). Brazil can share its technical expertise in areas such as irrigation, water control/management, etc.

Canada

Canada has extensive water resources but is facing lack of access to safe, clean water in many indigenous communities due to inadequate infrastructure, historical underfunding, and chronic mismanagement. But Canada can support ASEAN countries financially.

China

China, one of the most developed countries in the world, is seriously impacting climate change and global warming. Lots of water in China is polluted because of industrialization and China focuses on securing water only for its own citizens and its economic growth, many of the times cutting water streams and badly impacting downstream countries. China built lots of dams in rivers that used to flow to Southeast Asia, which led to conflicts between China and Southeast Asia.

France

France has expertise in water control and management techniques and technologies in international development, supporting sustainable water worldwide. The French Development Agency (AFD) shares France's technical expertise in areas such as irrigation, water conservation, and wastewater treatment.

Germany

Germany supports transboundary water cooperation in Southeast Asia, especially the Mekong region. Germany is one of the best countries in the world to help out and speak up for international water diplomacy, for example, advocating at UN forums for river basin planning in countries like Thailand and Vietnam.

India

India has a challenging geopolitical environment and very rapidly increasing population, resulting in problems with water security. India not only has a strict community hierarchy and wealth is not well distributed, lower classes don't have access to clean water. India should position itself as both a partner who shares their own technologies and a learner, willing to improve their infrastructure and water sanitary systems.

Israel

Water insecurity remains a significant issue around the Gaza strip. Israeli military actions disrupted water infrastructure, restricted access to clean water for the population. But Israel does have some precedent for sharing water expertise with Southeast Asian countries. For example, in 2011, Thailand had huge floods, Israeli water management experts were sent to Thailand to help them.

Italy

Italy also faces hardships because of their outdated, leaky infrastructure, poor management, and the impacts of climate change. Though Italy has a partnership called "Italy - Association of Southeast Asian Nations (ASEAN) Partnership for Sustainable Development", helping some countries who need help.

Japan

Japan often faces periodic lack of access to clean water due to seasonal natural disasters such as typhoons, tsunamis, rainfalls, etc. So Japan is currently investing 500 billion yen to improve water infrastructure and share digital innovations across the region. Knowledge gained through this investment could be shared with Southeast Asian countries.

Republic of Korea

South Korea is known as one of the cleanest tap waters and expertise in water purification and smart water management. South Korea already helped Southeast Asian countries like Vietnam and Indonesia to implement new water infrastructure and sanitation systems. There is an organization called Korea International Cooperation Agency (KOICA), and this organization is supporting water supply projects and investments.

Mexico

In Mexico, over half the population lacks access to water and sanitation, inflamed by rapid climate change, rapid population growth, poor infrastructure and management, etc. Mexico is not really in a position to help Southeast Asian countries, rather than trying to teach them, it might be

better to learn together, drawing parallels from its own challenges in balancing population growth and water scarcity.

Netherlands

The Netherlands is globally recognized by its expertise in water management and flood control. The Netherlands has been supporting Southeast Asian countries through the Dutch Water Sector's Partnership, which helped Mekong River, Vietnam with flood control and how to act upon climate change.

Nigeria

Nigeria is facing critical water scarcity issues, impacting millions of its citizens. Nigeria has tried to manage water along the River, but the implementation has been weak due to governance challenges. Nigeria has established a program called National Water Resources Master Plan and joined United Nations water and sanitation projects.

Russia

Russia has uneven distribution of clean water and it has gotten worse due to the current war happening with Ukraine. Russia does have vast water resources and has been helping other countries about water management. Through programs such as the UNECE Water Convention, Russia has cooperated with Asian countries, such as Vietnam and China, in water infrastructure and projects.

Saudi Arabia

Saudi Arabia is known for its oils, deserts, and how rich their citizens are. Saudi Arabia has extremely high per capita water consumption, requiring sophisticated technologies to handle all water demands. Saudi has also worked with a variety of international organizations for water infrastructure projects overseas.

Singapore

Singapore is a country that faces severe water scarcity issues due to a lack of natural freshwater sources, limited land for storage, and a rapidly growing population, consequently resulting in a growth in water demand. Singapore has made some efforts to address this issue, such as developing a more diversified water supply system called the "Four National Taps", which utilizes 4 main sources of water: local catchment water, imported water from Malaysia, recycled treated wastewater (NEWater), and desalinated water. However, the country still faces challenges such as a water demand expected to double by 2065 and climate change that may exacerbate existing issues even further.

South Africa

South Africa has some initiatives under the Southern African Development Community (SADC) which work on transboundary water cooperation. South Africa plays an active role is UN

SDG6 on clean water and sanitation, and can bring its expertise in water management, drought plans, etc that can help water scarcity in Southeast Asia.

Spain
As a country that is experiencing severe water insecurity ranking third for the highest water scarcity, Spain is a strong supporter of sustainable water management. Through agencies such as the Spanish Agency of International Development Cooperation(AECID), Spain contributes to fund water security projects globally. Spain has access to technological advancements including smart irrigation and wastewater treatment systems which could be utilized to support Southeast Asia countries.

Sweden
Sweden strongly supports sustainable water solutions and promotes human rights for water access. Organizations like Swedish International Development Cooperation Agency(SIDA) works representing the Swedish government to address water insecurity risks globally. Their support focuses on water resources management and waste management.

Turkey
As a country that contains the Trigis-Euphrates river system which lies over multiple countries including Syria, Iraq, and Iran, Turkey has experience on managing transboundary water sources. Through organizations such as the Turkish Cooperation and Coordination Agency(TIKA), Turkey provides significant support for water infrastructure assistance in developing countries focusing on improving sanitation.

United Kingdom
Providing £1 million for clean water support during extreme weather conditions like typhoons in Southeast Asia regions, the United Kingdom has actively participated in aiding the Southeast Asia region to address water insecurity. The United Kingdom advocates for climate resilience and sustainable water access globally.

United States
The United States of America has actively participated in regional water security through organizations including USAID facilitating programs such as Mekong Water Data Initiative. Emphasizing the importance of data sharing, the United States promotes climate resilience and transparent solutions involving technology and diplomatic approaches.

Vietnam
As a country with extreme climate patterns, over 13million Vietnamese have been reported to have insufficient access to clean water. The construction of China's upstream dam of the Mekong River partly worsened the water insecurity issue in Vietnam. Vietnam would likely emphasize

equitable transboundary water governance and stronger regional cooperation within the Mekong region to ensure sustainable and fair access to clean water.

Possible Solutions

Technological solution

By sharing technologies or tips from more developed countries, ASEAN countries would be able to develop their own system which will eventually result in improved water scarcity. Many news articles mention that sharing technologies might be the only way to improve/ or the only option to get more access to clean water and build better water infrastructure. For example, if countries like Germany help ASEAN countries to build or establish their own laws or regulations, those countries would have a better idea of how to purify water and how to use water efficiently.

Financial and Economical

Part of the reason why ASEAN countries have poor access to clean water is because they don't have enough money to build infrastructure. To solve this problem, countries could borrow money from organizations such as the World Bank, Asian Development Bank, and UN agencies. THey do already fund Southeast Asian development, but it seems to be not enough seeing the problem is getting worse. Funds could also be established at a regional level, an ASEAN Water Security Fund, for example to fund transboundary and large scale projects, such as the Mekong River system to ensure shared ownership and long-term economic security.

Ultimately, water scarcity in the Southeast Asian region can not be solved without international cooperation.

Questions to Consider

1. How could countries balance economic efficiency and environmental protection including freshwater protection?
2. In what ways could countries use diplomacy to resolve the water insecurity issues on water resources in shared water resources?
3. How can Southeast Asia ensure that sustainable water solutions do not only benefit wealthy urban centers but also reach marginalized rural and indigenous communities?
4. Can desalination be a viable and long-term solution for coastal cities in South Africa?
5. How can South Africa improve its water infrastructure to reduce loss through leakage or theft?

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