XXXVIII TECMUN

United Nations Educational, Scientific and Cultural Organization

XXXVIII TECMUN

Session Schedule

Wednesday, April 9th

Registration	8:00 – 9:00 h
Opening Ceremony	9:00 – 10:00 h
Break	10:00 – 10:30 h
First Session	10:30 – 12:30 h
Break	12:30 – 13:00 h
Second Session	13:00 – 15:00 h
Meal	15:00 – 16:00 h
Third Session	16:00 – 18:00 h

Thursday, April 10th

Master Conference	8:30 – 9:30 h
Break	9:30 – 10:00 h
Fourth Session	10:00 – 12:30 h
Break	12:30 – 13:00 h
Fifth Session	13:00 – 15:00 h
Meal	15:00 – 16:00 h
Sixth Session	16:00 – 18:00 h

Friday, April 11th

Seven Session	8:00 – 9:30 h
Break	9:30 – 10:00 h
Eight Session	10:00 – 12:00 h
Break	12:00 – 12:30 h
Ninth Session	12:30 – 14:40 h
Meal	14:40 – 16:00 h
Closing Ceremony	16:00 – 18:30 h

Secretary General: Paulo Souto Núñez

GENERAL COORDINATION

Subsecretary of General Coordination: Brenda Noreña Mejía
Supervisor of General Coordination for Co. Secretariat: Samuel Alejandro Herrera Tapia

GENERAL ASSEMBLY

General Subsecretary: William Vázquez Hernández
Supervisor of Coordination: Mauro Carrillo Gálvez

United Nations General Assembly

President: Guillermo Pacheco Infante

A) Measures to counter the forced displacement of citizens of Idlib in the Syrian Arab Republic due to attacks by the extremist group Hayat Tahrir al Sham (HTS) through regional dynamics involving support for Bashar al-Assad by the Russian Federation and the Islamic Republic of Iran.
B) Actions to counter the influence of the Grey Wolves in Europe, in order to mitigate ethnic tensions within Turkish expatriate communities, with emphasis on the Federal Republic of Germany, the Republic of Austria and the French Republic.

Histórico Comité Especial de los 24

Presidenta: Yésika Pamela García Trejo

A) Medidas para frenar el colonialismo en el territorio Ruanda-Urundi, actualmente República de Ruanda y República de Burundi, por parte de la República Federal de Alemania y el Reino de Bélgica, con énfasis en la reducción de prácticas discriminatorias entre los grupos étnicos Hutus y Tutsis. (1950-1962)
B) Acciones para examinar la solicitud de África Oriental Portuguesa, hoy República de Mozambique, para su independización de la República Portuguesa, buscando fortalecer la estructura económica y detener la explotación de recursos agrícolas y minerales dentro del territorio por parte de empresas del sector privado. (1964-1975)

Sixth Legal Committee

President: Sara Sofía Govantes Cruz

A) Measures to address human rights violations, including extrajudicial executions and sexual violence, in the ongoing conflict in the Republic of Sudan and their global implications for civilian protection in armed conflicts.
B) Strategies to address the legal implications of the Islamic Republic of Iran's support for Palestinian militias in the Israeli-Palestinian conflict, with emphasis on state sovereignty and application of international law.

Organization for Security and Co-operation in Europe
President: Claudia Guadalupe Pfeiffer Benítez

A) Actions to cease the migrant smuggling networks in the Central Mediterranean Route of Europe, with focus on border security and dismantling of criminal networks in the frontier states of the Italian Republic and the Republic of Malta.
B) Strategies to counter human trafficking with emphasis on labor exploitation currently committed by the Albanian Mafia in Western Europe in the French Republic and the United Kingdom of Great Britain and Northern Ireland.

Programa Conjunto de las Naciones Unidas sobre el VIH/SIDA
Presidente: Emiliano Melchor Romo

A) Estrategias para prevenir la transmisión vertical del VIH en mujeres embarazadas, así como mitigar el impacto que tiene en los niños y adolescentes que lo portan en la región subsahariana de África.
B) Acciones para contrarrestar los crecientes casos de VIH en la comunidad LGBTQ+ latina que reside en los Estados Unidos de América, priorizando el acceso a los tratamientos necesarios dentro del sistema de salud.

Alto Comisionado de las Naciones Unidas para los Refugiados
Presidenta: Abril Valdés Calva

Tópico Único) Medidas para salvaguardar los derechos humanos y la seguridad de los refugiados somalíes afectados por la crisis humanitaria en el Cuerno de África a causa de la división étnica en la República Federal de Somalia.

United Nations Convention against Transnational Organized Crime
President: Paulina de la Victoria Patiño

A) Measures to regulate and eliminate the trafficking routes and production of synthetic drugs in laboratories, with emphasis on the fabrication of methamphetamines and cultivation of opium in the Golden Triangle in Asia.
B) Strategies to cease the trafficking and smuggling of firearms across the border states between the nations that compose the Sahel region in Africa due to the presence of several organized crime groups and lack of governance.

Oficina del Representante Especial del Secretario General sobre la Violencia Sexual en los Conflictos
Presidenta: Ana Paula García López

A) Acciones para fortalecer el marco legislativo y la cooperación internacional sobre los grupos de apoyo y las misiones de la Organización de las Naciones Unidas con base a la violencia sexual por parte de los Cascos Azules en la República de Haití.
B) Estrategias para prevenir el uso de la violencia sexual como táctica militar por parte de grupos armados en el conflicto bélico entre la Federación de Rusia y Ucrania, con énfasis en el reforzamiento de servicios de atención y rendición de cuentas.

ECONOMIC AND SOCIAL COUNCIL
General Subsecretary: Miranda Sentíes Carmona
Supervisor of Coordination: Aarón Badillo Aguilar

Comisión de la Condición Jurídica y Social de la Mujer
Presidenta: Paulette Mayen Alvarez

A) Mecanismos para la implementación de reformas sobre la crisis de las niñas y las mujeres relacionada al consumo de sustancias nocivas agravada por la violencia de género, haciendo énfasis en la situación de la expectativa de género del Reino de Arabia Saudita.
B) Acciones para erradicar la marginación hacia las mujeres y niñas en naciones afectadas por conflictos y desigualdad de género dentro de Asia Meridional y África Subsahariana.

International Organization for Migration
President: Ana Mercado Garduño

A) Measures and strategies for enhancing security and protection of Syrian refugees transitioning in the Hashemite Kingdom of Jordan and the Republic of Türkiye.
B) Strategies for reintegration of incoming migrants in Central America, focusing on the Republic of El Salvador and the Republic of Honduras.

United Nations Interregional Crime and Justice Research Institute
President: Diego Ortiz Martínez

A) Actions to combat crimes linked to exploitation of critical minerals derived from weak law enforcement in the states of Africa, emphasizing in the Democratic Republic of the Congo.
B) Measures to counter organized criminal groups nexus with firearms trafficking networks in the Latin American region with emphasis in the Triple Frontier.

Organización Mundial del Comercio
Presidenta: Mariana Méndez Cruz

A) Estrategias para mitigar el comercio ilícito y fraudulento de productos médicos y farmacéuticos en la región de Asia y el Pacífico.
B) Medidas para contrarrestar el conflicto político relacionado al comercio de minerales energéticos y esenciales de América latina y el Caribe.

Comisión de Prevención del Delito y Justicia Penal
Presidenta: Natalia Forcada Nava

A) Estrategias para prevenir la trata de personas perpetuada por el grupo terrorista Tren de Aragua, con un enfoque en la República Bolivariana de Venezuela y la República de Colombia
B) Mecanismos para terminar la influencia del grupo terrorista Hizbulá en el Medio Oriente y América Latina, con énfasis en la República Libanesa y la República Bolivariana de Venezuela

United Nations Educational, Scientific and Cultural Organization
President: Gabriel Salazar Valdovinos

A) Measures to counter the environmental and economic impacts of sea levels' rising, and the climate change on island nations, through new technologies and sustainable solutions with emphasis on the Republic of the Maldives and Tuvalu.

B) Strategies to boost Science, Technology, Engineering and Mathematics (STEM) education and increase investment in scientific and technological development in Latin America, with emphasis on the United Mexican States.

Instituto de las Naciones Unidas de Investigación sobre el Desarme

Presidenta: María José Parra Meza

A) Acciones para neutralizar el conflicto armado dentro de la región del Sahel, con énfasis en los ataques de grupos extremistas yihadistas.
B) Acciones para neutralizar el conflicto armado dentro de la República de la Unión de Myanmar causado por el enfrentamiento de grupos religiosos dentro de la región.

Commission on Narcotic Drugs

President: Mariana Carolina Guerrero Zárate

A) Strategies to reduce the trafficking and consumption of synthetic drugs within Latin American prisons due to the inadequate penitentiary security systems, with an emphasis on the Federative Republic of Brazil.
B) Measures to reduce the production of synthetic drugs due to the presence of drug trafficking groups in rural areas of Latin America, focusing on illicit coca leaf in the Republic of Peru and the Republic of Colombia.

SPECIALIZED AGENCIES AND REGIONAL ORGANISMS

General Subsecretary: Aranza Michelle Castro Rivero
Supervisor of Coordination: Sofía Torres Escalante

United Nations Office for Outer Space Affairs

President: Patrick Eduardo Cunillé Paniagua

A) Strategies to regulate the use of Artificial Intelligence in outer space to ensure global peace, development and prevent militarization.
B) Measures to promote fair and sustainable utilization of space resources, seeking equitable access, and collaboration among nations to foster global development in the space economy.

North Atlantic Treaty Organization

President: Axl Paris Ortega Rodríguez

A) Strategies to address security challenges and environmental responsibilities in the Arctic, countering militarization and fostering regional stability.
B) Measures to enhance NATO’s role in the Serbia-Kosovo conflict, foster reconciliation in the Balkans, and mitigate Russian influence.

Comité Internacional de la Cruz Roja

Presidenta: María José Zárraga García

A) Medidas para garantizar la protección de las minorías étnicas de la República de la Unión de Myanmar frente al uso de minas antipersonales, debido al actual conflicto armado civil.
B) Estrategias para mitigar el impacto del conflicto armado en la infraestructura sanitaria de la República del Sudán, priorizando el acceso a servicios médicos para las comunidades afectadas.

International Criminal Police Organization
President: Fátima Fuente del Campo González

Unique Topic) Measures to address transnational trafficking networks responsible for human trafficking, sexual and labour exploitation of women and girls.

Security Council
President: Samantha Salgado Nájar

A) Measures to mitigate the maritime security crisis in the Republic of Yemen, with emphasis on the Red Sea violence and security restoration.
B) Strategies to prevent a possible military deployment from the Republic of the Philippines and the United States of America to the People's Republic of China, due to recent territorial disputes in the South China Sea.

Conseil des Droits de l'Homme
Président: Oscar Avila Pérez

A) Actions visant à renforcer l'enquête sur les homicides et les crimes de haine envers les femmes trans aux États-Unis Mexicains, mettant en évidence l'inefficacité du système judiciaire à rendre justice et à garantir leur sécurité.
B) Dispositifs légaux pour arrêter les atteintes aux droits des femmes en République Islamique d'Afghanistan en raison des lois talibanes, en portant une attention particulière à la violence sexuelle subie.

Histórica Asociación de Naciones del Sudeste Asiático
Presidenta: Daniela Alexa Alcántara Sosa

A) Acciones para frenar las violaciones de derechos humanos cometidas por el Tatmadaw en la Unión de Birmania a causa del conflicto civil, con énfasis en los abusos sufridos por el grupo étnico Rohinyá y el incumplimiento de la Carta de la ASEAN. (1968)
B) Estrategias para regular la migración de refugiados vietnamitas con énfasis en los desplazados provenientes de las ciudades de Saigón y Hanoi a países del Sudeste Asiático, a causa del conflicto bélico entre la República Democrática de Vietnam y la República de Vietnam. (1955-1975)

Corte Penal Internacional
Presidenta: Andrea Abigail Salazar López

A) Acusación contra Benjamín Netanyahu, primer ministro del Estado de Israel, por presuntos crímenes de guerra perpetrados en Gaza.
B) Investigaciones contra Nicolás Maduro y el gobierno de la República Bolivariana de Venezuela por posibles crímenes de lesa humanidad.

Dear participant,

Our goal is to shape you into an exemplary person, who through dialogue, analysis, and debate, becomes a role model and a leader. But you must know that being a leader is not only about directing, but about inspiring, igniting the flame of change, and forging a future where cooperation and understanding are the foundation of our world. As Secretary-General for this edition of TECMUN, it is a pleasure to welcome you one last time to this Model.

Unfortunately, our world faces an enormous number of challenges, injustices, and adversities every day. Take a moment and appreciate all the good things you have in your life: friends, family, opportunities, and recognize the privilege of being who you are and having the life you have. Always take advantage of this opportunity, strive to improve yourself every day, seek to raise your voice for all those who, unlike you, cannot, always fight for a better place where we can all live, and shape yourself into someone intelligent, upright, and above all, a good person.

As one of the most important Model United Nations in Latin America, we hope you enjoy another edition of TECMUN to the fullest. The entire Secretariat has worked hard to ensure that during these three days of debate, we open the doors for you to learn, question, and build, but above all, to become the agent of change that the world needs. Always remember that today you have the valuable opportunity to make a difference.

Thank you for everything TECMUN

Paulo Souto Núñez
Secretary General for the
XXXVIII TECMUN

"We don't have to do everything in order to be everything, because we are already infinite. While we are alive we always contain a future of multifarious possibility."

— The Midnight Library

Dear participant:

Being here today, addressing these words to you, is the result of a series of coincidences that led me to this position. Just like you, I was once a delegate, feeling anxious about the experience ahead, doubting whether I was prepared enough, and allowing my own shyness to hold me back from participating and sharing my ideas. However, I made the decision to try, to push past that deeply rooted fear. Even though I never won any awards as a delegate, I discovered that simply being in a room debating global issues helped me realize that my voice mattered and that my ideas could contribute something valuable. That said, do not take part in this solely with the goal of earning recognition. By engaging in this debate exercise, you develop communication and leadership skills. Moreover, you demonstrate your commitment and passion for the change our society needs, strengthening your value as an individual.

From my own experience, I can tell you that success requires more than just discipline, it also demands sacrifice and, above all, passion. Do things with love, and always strive to give your best, even when faced with tasks that may not be to your liking. To be honest, I used to find Model United Nations tedious and unappealing. However, I chose to change my perspective and focus on the areas that fulfilled me and allowed me to truly enjoy what I was doing. With this, I encourage you to shift away from the pessimistic mindset that is often tied to human nature and instead explore the wonders our world has to offer. Embrace your curiosity, challenge your own limits, innovate solutions for today's global issues, laugh, create unforgettable memories, make friends, love, make mistakes, try again, make mistakes once more, but never give up on pursuing your goals and dreams.

This edition marks the end of an important chapter in my life, as I bid farewell to TECMUN with a deep sense of nostalgia. Despite this, I carry in my heart all the experiences I have lived, the laughter, the moments, and most importantly, the friendships I have built over these three years of participation. Make the most of the opportunity you have in this Model to challenge the perspectives presented worldwide and enrich your knowledge by learning from others. Remember that success is a path never walked alone, it is traveled alongside those who inspire and support us. TECMUN has had a profound impact on my life, and I hope you will come to love it as much as I did. Take my experience as proof that life has great things in store for you, so let them unfold and embrace every stage of your journey. I wish you great success in these days of hard work and hope you achieve all your goals. TECMUN, thank you for allowing me to be part of your story; I leave my mark on you, and I take a piece of you in my heart,

Brenda Noreña Mejía
Subsecretary of General Coordination for the
XXXVIII TECMUN

"There comes a time in your life when you have to choose to turn the page, write another book or simply close it." — *Shannon L. Alder*

Dear Delegate,

Filled with a thousand emotions, I write this letter, my last one. There are no words to truly say goodbye to this model, one of my greatest dreams, but I will try.

Eight years ago, I discovered what a Model United Nations was. Did I like it? Honestly, fear and confusion outweighed any other feelings at first. But the mere thought that, for at least those three days, my voice represented thousands who could not speak, knowing that I had the power to create change and seek solutions to global issues, filled me with a deep sense of purpose. Purpose grew stronger with each model, becoming a force that shaped Miranda, motivating me, and enriching me with new lessons that forged a part of my character and vision.

However, my greatest love for MUN truly emerged when I entered high school. I met so many people, great friends and incredibly important individuals who have accompanied me throughout this journey. They have been a fundamental part of my growth: some as older partners who guided and inspired me to strive for more, others as younger ones who allowed me to be their guide. Dreaming of even writing one of these letters was once a distant aspiration. Without a doubt, everything that led to this moment was a tremendous challenge, a wonderful experience that no words could ever fully capture. Every model is magical, and that is why I ask you to never close off. Allow yourself to experience a United Nations Model, and you will understand what I mean. Because it goes beyond just speaking in a forum, cause you have the power to leave **your** mark, to use your voice and actions to fulfill dreams and achieve what you once thought was impossible. I firmly believe that when we desire something with all our hearts, it becomes reality. **TECMUN** has given me countless memories to carry with me forever, and I treasure every lesson it has taught me. Delegate, thank you for being part of this dream, and I ask you to fight for yours as well.

Miranda Sentíes Carmona
Subsecretary of the Economic and Social Council for the
XXXVIII TECMUN

"Live to win, dare to fail."
–James Hetfield

Dear delegate,

Welcome to UNESCO, it's a pleasure for me to have you in this committee for this XXXVIII TECMUN. Whether it is your first model or your tenth I hope you enjoy it the most and take advantage of it, so after these three days, you are a different version of yourself. Maybe your skills to talk in public are better, maybe you have a different perspective of the world we live in and how it works, or perhaps your desire to change the world has arised, no matter what it is, but I hope you take something with you.

I remember that in my first model I had so much to say, but I was trying to find the perfect moment and started overthinking it, the minutes passed and the fear of failing was getting bigger, in the end I didn't say anything. I think about it and I regret it, nevertheless, I understand that it is part of the process, so the next model, even though I still was nervous, I tried it; the result of course was positive, besides, I lost the fear of public speaking. What I'm trying to say is: don't be afraid to take the risk, dare to fail, we all started in the same place and you never know, maybe someday your voice will be heard in the UN, just take the step!

Finally, thank you for being part of my second and last presidency in TECMUN, as well as for having the commitment to learn and do your best. I will be guiding you through this wonderful process, so don't be afraid to show your abilities, because each one of you will be an essential part for solving this big puzzle. Enjoy the model, and thank you for being part of my legacy in TECMUN.

Gabriel Salazar Valdovinos
President for the United Nations Educational, Scientific
and Cultural Organization for the
XXXVIII TECMUN

Background

After World War II, a new organization emerged with the objective of building a culture of peace and preventing the outbreak of another World War. Nowadays and with 194 Members and 12 Associate Members, The United Nations Educational, Scientific and Cultural Organization (UNESCO) stands on the frontline of international cooperation, in coordination with other agencies of the United Nations. UNESCO uses education, science, culture, communication and information to strengthen the intellectual and moral solidarity of humankind in order to bring out the best of humanity. In addition, UNESCO's programmes work towards the achievement of the Sustainable Development Goals defined in the 2030 Agenda.

Faculties

With the objective of improving the human condition, through fostering education, science and culture as well as highlighting the key role of peace, the UNESCO is capable of:

- Develop and implement strategies, programs, and projects in collaboration with national authorities and global partners;
- Boost research and promote international scientific cooperation, focusing on the development of innovative technologies;
- Assist governments in adopting international standards and managing programs that facilitate the global exchange of knowledge and best practices;
- Advise and provide technical assistance to member states on the correct use of emerging technologies;
- Provide guidance and assistance to encourage investments in science, technology, and

innovations, as well as in the training of education professionals;

- Support the restoration and preservation of cultural heritage and institutions in post-conflict and post-disaster scenarios.

Topic A

Measures to counter the environmental and economic impacts of sea levels' rising, and the climate change on island nations, through new technologies and sustainable solutions with emphasis in The Republic of the Maldives and Tuvalu

By: Gabriel Salazar Valdovinos, Camila Ruiz Juárez, Estefany Eunice Santillan Garcia and Camila Oliveros Dávila

Introduction

Climate change has been the biggest challenge for humanity in the last century, it has plenty of consequences, as it could lead to widespread famine[1], displacement, injury and even armed conflicts. According to the Natural Resources Defense Council (NRDC) if the amount of greenhouse gas emissions isn't reduced, the consequences will be catastrophic, including "massive crop and fishery collapse, the disappearance of hundreds of thousands of species, and entire communities becoming uninhabitable". According to the Intergovernmental Panel on Climate Change (IPCC), the planet has already warmed 1.1 degrees celsius since the preindustrial era, nevertheless, scientists warn that if the causes of climate change aren't addressed (mainly the burning of fossil fuels) by 2100 it would reach an increase of 4 degrees celsius, which would be a catastrophic scenario. In addition, the primary cause of climate change is the increase of carbon dioxide (CO_2) in our atmosphere. Carbon dioxide levels are already 50% higher than the ones during the industrial revolution, it is concerning since it creates a greenhouse effect, meaning it traps heat in the Earth's atmosphere.

However, one of the main consequences of global warming, as well as one of the most impactful, is the sea level rise (the increase of the total volume of ocean water). It results from the melting of glaciers and polar ice sheets[2], likewise a phenomenon known as thermal expansion occurs when water gets warmer, resulting in a higher volume of it. Scientists measure sea level rise in two ways; the relative sea level change and the global sea level rise (also known as absolute sea level change) which according to the NRDC is the "global average sea level compared to a fixed point, such as the center of the earth". Furthermore, according to a report made by some agencies from the United States of America, including

---

[1] **Famine:** Famine is a situation in which large numbers of people have little or no food. (Dictionary of Collins, 2024).
[2] **Ice sheet:** An ice sheet is a large thick area of ice, especially one that exists for a long time. (Dictionary of Collins, 2024).

the National Oceanic and Atmospheric Administration (NOAA), it is projected that global mean sea levels will rise almost 0.28 meter by 2050 and above 1 meter by 2100. However, according to the same studio, that is just an "intermediate" scenario, if significant actions aren't taken, we could reach a projected "high" scenario which estimates that sea levels could rise up to 2 meters by the end of the century (Craig, C., 2024).

Climate change is already damaging ecosystems, and even a slight shift in temperature can cause extreme changes, affecting food webs and the entire environment. The consequences of sea level rises are alarming, starting with the environmental ones; the encroaching[3] of seawater can erode coastal ecosystems, as well as invade freshwater inland aquifers[4], which are fundamental for agriculture and drinking water. Also, as it affects food webs, it directly impacts the economies of the nations who rely on fishery. Nevertheless, the most concerning consequence is the devastation of low-lying[5] regions, which include island nations[6] or even densely populated coastal cities such as New York City and Mumbai.

Background: The threat towards the Island Nations.

According to the United Nations, "the ocean generates 50 percent of the oxygen we need, absorbs 25 percent of all carbon dioxide emissions and captures 90 percent of the excess heat generated by these emissions". Despite being one of the keys for countering the effects of climate change, oceans are starting to suffer the consequences of global warming. Besides the temperature increase and sea level rise, oceans are becoming more acidic, as they absorb a greater quantity of CO_2 from the atmosphere. The importance of oceans does not only rely

[3] **Encroach:** If something encroaches on a place, it spreads and takes over more and more of that place. (Dictionary of Collins, 2024).
[4] **Aquifer:** In geology, an aquifer is an area of rock underneath the surface of the earth which absorbs and holds water. (Dictionary of Collins, 2024).
[5] **Low-lying:** Low-lying land is at, near, or below sea level. (Dictionary of Collins, 2024).
[6] **Island Nation:** A country that is entirely made up of one or more islands. (Dictionary of Collins, 2024).

on climate change, but plays a crucial role in many communities, as more than 680 million people (nearly 10 percent of the global population) live in low-lying coastal zones.

Nowadays, there are many territories and nations worldwide that are at risk of disappearing or at least, being highly affected due to the rising of sea levels. Being Tuvalu, The Republic of Maldives and The Republic of the Marshall Islands the ones with higher risk, however, they are not the only ones. Losing these places will not only cause thousands of displacements within the population, but it will also cause the eradication of unique cultural heritages and history. The sinking of Tuvalu has caught the attention of the international community, with some countries taking action in order to reduce emissions, and others lagging behind[7]. In 2015, the Paris Agreement was signed, marking a positive step forward, as for the first time, a binding[8] agreement brings all nations together to combat climate change and adapt to its effects. Nevertheless, not so much has changed, as 2023 was the warmest year on record.

The Republic of Maldives and Tuvalu are low-lying island countries in the Pacific and Indian Oceans. Their economies heavily depend on tourism, fishing, and agriculture, which puts them at risk of losing important infrastructure and large parts of their land as the sea continues to rise. To tackle this, both nations are looking into new technologies and sustainable ways to protect their coastlines and secure their future. They are building sea walls, creating floating cities, and restoring coral reefs to keep their shores safe from erosion and floods. Additionally, they are focusing on using renewable energy to lower their carbon output and build lasting environmental strength.

Repercussions of sea levels' rising in The Republic of Maldives and Tuvalu

[7] **Lag Behind:** If one thing or person lags behind another thing or person, their progress is slower than that of the other. (Dictionary of Collins, 2024).
[8] **Binding:** A binding promise, agreement, or decision must be obeyed or carried out. (Dictionary of Collins, 2024).

The Republic of Maldives and Tuvalu are experiencing similar environmental issues; starting with coastal erosion, which is caused mainly by the flooding of the island, as well as the increase of storms and cyclones, which accelerate the erosion process. Scientists indicate that approximately 50% of Funafuti, Tuvalu's capital, will be submerged by 2050 (Stolzoff, 2024). Moreover, the encroaching of salt water into subway aquifers is contaminating freshwater and as a consequence, affecting the supply of drinking water. This has a direct impact on agriculture, since plants are very sensitive to salt in the water. Likewise, coastal ecosystems are also being threatened, being coral reefs the most damaged due to the recent acidification of water and the increase of sea temperature.

Moreover social consequences affect daily life and culture. Due to the previous environmental threats, entire communities have been forced to be relocated[9]. However, relocation presents logistical challenges due to the lack of adequate infrastructure and basic services in the new communities. Besides, according to reports, since 2004, about 75% of Tuvulans over the age of 30 have migrated to countries such as New Zealand and The Commonwealth of Australia under the Pacific Access Category program (Nahib, S. 2022). On the other hand, the invasion of saltwater into aquifers and soils is affecting agriculture and fisheries, reducing access to food, directly affecting the communities that depend on it for their livelihoods[10]. Furthermore, according to the Food and Agriculture Organization (FAO) around 80% of Tuvalu's population participate in agriculture and fishery. Additionally, lack of access to freshwater brings health problems to the population, increasing diseases such as gastroenteritis, diarrhea and cysticercosis.

[9] **Relocate:** If people or businesses relocate or if someone relocates them, they move to a different place. (Dictionary of Collins, 2024).

[10] **Livelihood:** Your livelihood is the job or other source of income that gives you the money to buy the things you
need. (Dictionary of Collins, 2024).

Similarly economic impacts have increased severely. According to the U.K.'s National Oceanographic Centre, "the global cost of rising sea levels will be 14 trillion United States Dollars (USD) a year by 2100". Caused mainly by vulnerable infrastructure, including energy plants, water treatment facilities, underground communications cables and transportation networks, like ports and railways. Economic consequences have already been presented within the Republic of Maldives and Tuvalu, as it mainly affects key sectors like fisheries and tourism, which this last contributes to around 30% of the gross domestic product (GDP), while fisheries provide significant employment and export revenue. Furthermore, the International Finance Corporation suggests that island nations have to invest in climate-resilient infrastructure, such as seawalls and elevated housing, in order to mitigate flooding and storm surges.

Impact of science, technology and education towards the issue

The scientific community plays a key role in the fight against the effects of climate change, the only way humanity can avoid global warming exceeding two degrees above pre-industrial levels, is through science and innovation. Currently and according to the UNESCO "Scientists are using physics, mathematics, chemistry, and biology to address fundamental scientific challenges in climate resilience and adaptation, such as genome-edited[11] crops for food security, nanotechnology-based water purification processes for water management, and electrochemical storage solutions for energy resources". Besides, science can stimulate low-carbon innovation and support new low-carbon business models, which are necessary to reduce CO_2 levels. Moreover, climate change education is crucial, as it helps people understand and address the impacts of the actual climate crisis. Through the International Basic Sciences Programme, UNESCO has been promoting intergovernmental cooperation to

[11] **Genome editing:** the insertion or removal of DNA at a specific site on a genome using artificially engineered nucleases. (Dictionary of Collins, 2024).

strengthen national capacities in the basic sciences and science education seeking to provide innovative solutions to the Sustainable Development Goals, with emphasis in climate change.

Nowadays, the world's economies are built on scientific and technological knowledge exploitation. Recently, leading developing countries have been rapidly enhancing their own capacities in these areas, being the cleaner energy technologies the ones that have the greatest impact on combating climate change. However, developing countries continue to confront barriers to access clean and climate-friendly technology. According to the IPCC, “a range of stabilization scenarios can be achieved with a portfolio of technologies some of which are already available”. Nevertheless, the lack of investment and resources stops it from happening. International technology cooperation and partnerships[12] can help to overcome these barriers and accelerate the transfer and adaptation to climate mitigating technologies.

On the other hand, education is a highly relevant factor, as it has remarkable benefits. Throughout education, people can change their attitudes and behavior, but mainly, it helps make informed decisions. In addition, since 33% of the world population are under 20 years old, education importance is highlightable (Morse, A., 2023). Education empowers all people, but it especially motivates the youngest generation to take action. Besides, in the classroom, youthful people can be taught about the impact of global warming and learn how to adapt or take actions. Through its Climate Change Education for Sustainable Development programme, UNESCO aims to help people understand the impact of global warming and increase climate awareness among young people. At the Conference of the Parties (COP) events, UNESCO calls on governments about the importance of prioritizing investments in education systems; it “can address the urgent need for climate mitigation, adaptation and

[12] **Partnership:** A partnership is a relationship in which two or more people, organizations, or countries work together as partners. (Dictionary of Collins, 2024).

resilience, ensuring that education becomes a key enabler in the global response to the climate crisis”.

International Response

The international community has taken significant steps to counter the impact of sea level rise on island nations. The Paris Agreement, adopted in 2015, is a global framework that aims to limit global warming to below 2°C. Through the Intergovernmental Oceanographic Commission (IOC), UNESCO supports vulnerable countries by providing scientific monitoring and promoting strategies to increase coastal resilience. The Emerging Nations Initiative, led by countries like Tuvalu and supported by international partners, advocates for adapted climate change infrastructure and offers financial assistance to adapt to it. Programs such as the Green Climate Fund (GCF) also provide resources to help the reduction, adapt to sea-level rise and emphasize the global responsibility to protect these high-risk communities.

As the international community recognizes the importance of education and science to address climate change, the emergence[13] of new technologies is marking a positive impact; making it easier to identify emissions sources, come up with lower-carbon alternatives to fossil fuels, and even remove excess greenhouse gases from the atmosphere. Actions related to these fields have also been taken in Tuvalu, as communities have introduced mitigation measures to these impacts such as rebuilding infrastructures and coming up with innovative farming practices. For instance, to mitigate the saltwater intrusion, farmers have raised artificial soil beds to a height that is beyond the reach of saltwater. Likewise, people in Tuvalu have also moved their food resources to higher locations, so less saltwater penetrates.

[13] **Emergence:** The emergence of something is the process or event of its coming into existence. (Dictionary of Collins, 2024).

Communities, especially the youths, have planted mangroves[14] along the beach to prevent coastal erosion further inland to reduce the impacts of strong currents and waves.

Initiatives like the Alliance of Small Island States (AOSIS), (a coalition of 42 low-lying and small island nations) and the Small Island Developing States (SIDS) have been formed, in order to address global warming and its effects on these regions. Despite contributing to less than 1% of global emissions, these states have been crucial for climate initiatives such as the Reducing Emissions from Deforestation and forest Degradation (REDD) program or the compromise of the Republic of Maldives' to reach carbon neutrality, among others. Moreover, The United Nations Development Programs Pacific Office mobilized 1 million USD to support early warning systems for water resources in seven countries: The Cook Islands, Federated States of Micronesia, The Republic of Kiribati, The Republic of the Marshall Islands, The Republic of Nauru, The Solomon Islands and The Kingdom of Tonga. However, these efforts alone are insufficient without a significant increase in global cooperation, particularly from larger economies, which must prioritize equitable climate action over short-term economic interests.

[14] **Mangrove:** any of various coastal or aquatic tropical trees or shrubs, esp. of the mangrove family, that form large colonies in swamps or shallow water and provide a habitat for young fish and shrimp. (Dictionary of Collins, 2024).

Topic B

Strategies to boost Science, Technology, Engineering and Mathematics (STEM) education and increase investment in scientific and technological development in Latin America, with emphasis on the United Mexican States

By: Gabriel Salazar Valdovinos and Camila Ruiz Juárez

Introduction

According to the International Science Teaching Foundation (ISTF), STEM education promotes the integration and development of scientific-technical subjects in a single interdisciplinary framework. This education is a teaching approach centred in the areas of science, technology, engineering and mathematics (STEM). Its objective is to guarantee the transversality[15] of the learning process through disciplines that are considered essential for the development of individuals in the current local and global context. Leading to the promotion of diverse benefits including critical thinking, creativity and innovation, as well as social skills like collaboration and teamwork. Additionally, it emphasizes teaching students how to apply the scientific method to everyday situations, with a focus on solving real-world problems.

Science, technology and innovation (STI) plays an important role in modern society, since it fosters[16] economic, social and environmental development (the three pillars of sustainable development). Moreover, research and development can also boost sustainable development by building greener and more inclusive societies (UNESCO, 2024). In addition, the skills developed by students through STEM provide them the necessary tools to succeed at school and beyond. In fact, employer demand for STEM qualifications and skills is higher, and will continue to increase in the future (Government of the Western Australia, 2025).

On the other hand, Latin America faces significant challenges in advancing STEM education, with many countries in the region investing less than 0.5% of their Gross Domestic Product (GDP) to research and development, far below the global average

[15] **Transversality:** Transversal skills are those typically considered as not specifically related to a particular job, task, academic discipline or area of knowledge but as skills that can be used in a wide variety of situations and work settings. (UNESCO, 2014).
[16] **Foster:** To foster something such as an activity or idea means to help it to develop. (Dictionary of Collins, 2024).

(ECLAC, 2024). This lack of investment has led to limited access to STEM programs, inadequate infrastructure, and an absence of trained educators, particularly in rural areas. Addressing the issue of technology insufficiency and development within Latin America is crucial, as the region has abundant natural resources and a large workforce[17] (ECLAC, 2024). Therefore, by investing in education and technology, multiple benefits may be achieved, such as a skilled labor force capable of developing innovation, leading to the attraction of foreign investment, and subsequently, creating sustainable economic growth.

Background: Emergence of STI in Latin America

The historical background of the policies in STI dates back to the end of the Second World War. A series of programs and organizations, such as UNESCO or Organisation for Economic Cooperation and Development (OECD) were created with the objective of rebuilding the economies of industrialized countries. These programs unified science and technology, and therefore, it became possible for international trade to recover. Nevertheless, the situation in Latin America is different, due to socio-political crises in several countries, the region lagged behind[18] in adjusting to this new international model.

However, once the region realized how backward[19] its productivity and economic models were in relation to the world, attempts to encourage technological research and innovation started to take place. These policies began to be implemented in the 1950s and 1960s, and made a change, as they began to highlight the need of including the region's problems in the international agenda. As a consequence, the Economic Commission for Latin America and the Caribbean (ECLAC) was created, which recognized the need of establishing

[17] **Workforce:** The workforce is the total number of people in a country or region who are physically able to do a job and are available for work. (Dictionary of Collins, 2024).
[18] **Lag Behind:** If one thing or person lags behind another thing or person, their progress is slower than that of the other. (Dictionary of Collins, 2024).
[19] **Backward:** A backward country or society does not have modern industries and machines. (Dictionary of Collins, 2024).

a strategy in the region to promote science, technology and innovation; marking as a first step the creation of public policies in STI. Furthermore, other multinational, regional and international organizations have carried out interventions to strengthen STI within the region, with the Organization of American States, World Bank and UNESCO being the most involved.

Nevertheless, during the 1970s and 1980s, political crises once again arose in several Latin American countries, such as the United Mexican States, the Republic of Chile, the Argentine Republic, the Federative Republic of Brazil, the Republic of Colombia, among others. As a consequence, the interest in STI policies decreased, as countries centred their attention in political and economical fields. This situation lasted until the mid-1980s, when Latin American States decided to resume the scientific and technological impulse. Since then, interest within the topic has been changing and nowadays, the new approach adopted is the one of: "the countries of the region will incorporate strategies to promote scientific and technological work not only as an essential part of economic growth, but as a factor of social development" (Rivas-Castillo, C., 2020).

STEM importance for the future and current situation in Latin America

Nowadays, the global economy is changing and STEM education is a crucial factor on account of technological advances, many jobs are disappearing due to automation[20] and new ones are emerging every day. In fact, according to the ISTF "the eleven countries with the highest number of STEM career graduates in 2020 were also some of the world's strongest or fastest-growing economies". However, the situation in Latin America is different, as science

[20] **Automation:** the use of methods for controlling industrial processes automatically, esp by electronically controlled systems, often reducing manpower. (Dictionary of Collins, 2024).

is not an engine of the economy in the region. Moreover, most of the equipment and supplies used in the region are imported, and besides, national industries are not given the incentives[21] to produce these goods in their own country (Ciocca & Delgado, 2017). Strengthening STEM education in Latin America is essential for fostering economic resilience and enhancing the region's global competitiveness. Furthermore, the triple helix model (collaboration between government, industry and educational institutions) is crucial to achieve a culture where scientific and technological advancements benefit the region (Triple Helix Nigeria, 2023).

Currently, there is a huge disparity in scientific productivity worldwide, but particularly in Latin America. It is thought that it might be linked to the relative economic health of the different countries within the region, but even the largest and relatively wealthiest Latin American countries like the United Mexican States or the Federative Republic of Brazil do not produce a good level of science, highlighting the issue within the region. Although Latin America has increased the number of its scientists and research institutions in recent years, the gap between developed countries and Latin American countries is startling[22]. The major factors that contribute to a low scientific productivity are "the limited access to grant opportunities, inadequate budgets[23], substandard levels of laboratory infrastructure and equipment, the high cost and limited supply of reagents[24], inadequate salaries and personal insecurity of scientists" (Ciocca & Delgado, 2017). Furthermore, the economic and political instability in the region has resulted in a scarcity[25] of long-term goals, which are essential for the development of science.

---

[21] **Incentive:** If something is an incentive to do something, it encourages you to do it. (Dictionary of Collins, 2024).
[22] **Startling:** Something that is startling is so different, unexpected, or remarkable that people react to it with surprise. (Dictionary of Collins, 2024).
[23] **Budget:** The budget for something is the amount of money that a person, organization, or country has available to spend on it. (Dictionary of Collins, 2024).
[24] **Reagent:** A reagent is a substance that is used to cause a chemical reaction. Reagents are often used in order to indicate the presence of another substance. (Dictionary of Collins, 2024).
[25] **Scarcity:** If there is a scarcity of something, there is not enough of it for the people who need it or want it. (Dictionary of Collins, 2024).

Nonetheless, the low scientific productivity in Latin America is not the result of a lack of creativity or talent within the society but results from the absence of investment and prioritization towards science. In fact, several Latin American scientists have been successful in global scientific work, such as Maria Guadalupe Guzman, a cuban virologist renowned[26] for her research on dengue fever that in 2021 became the first Caribbean woman to have won the International Prize for Women in Science by UNESCO or the case of Mario Molina, the first Mexican-born scientist to win a Nobel Prize in Chemistry. On the other hand, according to the World Bank, in Latin America, only 30% of students achieve the standards necessary for success in STEM professions. This data remarks the lack of training and experience essential for innovation initiatives, but also shows how backward the region is in matters of STEM education.

Scientific crisis within the United Mexican States

Historically, the Mexican economy was largely based on exploiting its abundant natural resources, with oil production accounting for an important share of GDP. Moreover, its economy was closed and heavily regulated. The reason why it is important to know and understand the background of it, is because as a result: "Mexican companies have had little incentive to innovate and did not perceive the need to invest in research and development (R&D). Similarly, science and technology (S&T) was largely absent from the government agenda" (Gonzales C., 2007), having as a consequence that scientific fields haven't been important for the Mexican government until recent years, explaining the backwardness in Mexican science.

On the other hand, it does not mean that science and technology isn't present in the United Mexican States. It all started in 1960, as the country took a first step towards S&T and

[26] **Renowned:** A person or place that is renowned for something, usually something good, is well known because of it. (Dictionary of Collins, 2024).

created the National Institute for Scientific Research which provided scholarships to fund[27] undergraduate college thesis and graduate education. In the 1970s, the education system expanded as a number of large public universities were established, but also the National Institute for Scientific Research became the National Council for Science and Technology (Conacyt) and started to award research grants. As a result of these policies and changes, a small, active scientific community in the United Mexican States was established. However, in the 1980s a huge financial crisis (also known as the "lost decade") hit the region, affecting Latin America and the United Mexican States, where inflation levels reached more than 150% and as a result, the few scientists that the country had been able to foster started leaving, mainly to the United States of America (Gonzales C. 2007). Lastly, in 1984, in an attempt to avoid a total loss of the scientific community, the National System of Researchers was created, which as of today, still provides a significant part of the incomes for Mexican researchers.

Furthermore, in the United Mexican States, the education issue is mainly caused by socio-economic inequalities and lack of collaboration among academic institutions and the private sector, leaving many students without the enough resources to pursue careers in science and technology. Despite being the second highest GDP in Latin America, the United Mexican States invest less than 0.5% of it in science and technology, staying way behind than the average invested by the nations that are part of the Organization for Economic Cooperation and Development (OECD), which on average invest 2.5% of their GDP (Statista, 2023). Besides, the percentage of investment has had a decreasing tendency from 2014-2019. In addition, 43.8% of Mexicans have a minimum level of mathematical competence (the average from the countries of the OECD is 76%), marking the necessity of developing STEM education, and being benefited by them, since STEM careers are the ones

[27] **Fund:** Funds are amounts of money that are available to be spent, especially money that is given to an organization or person for a particular purpose. (Dictionary of Collins, 2024).

with biggest economic potential and employability, as labor participation of adults with STEM careers is greater than 80% (Andrade, G. 2021).

Importance of STEM education and science investment benefits

There is no doubt that science is fundamental in the development of humanity, with contributions to every field of modern society, going from medicine to the development of new technologies. For this reason, developed countries spend a large proportion of their annual budgets on research, being the United States of America, the Republic of South Korea and the State of Israel the ones who invest the most according to the OECD. Moreover, investment in technology generates multiple benefits, including increased productivity by facilitating automation, promotes job creation in emerging areas such as programming and cybersecurity while fostering labor inclusion for marginalized sectors. On the other hand, innovation facilitates the development of new products and services, triggering a cycle of progress. This approach contributes to sustainable economic development by prioritizing clean technologies like solar and wind energy, reducing dependence on fossil fuels (COPARMEX, 2023).

Additionally, STEM education also has multiple benefits, besides the personal ones that have already been mentioned, a solid STEM education is becoming more important for the economy. According to the Bureau of Labor Statistics from the United States of America, "employment in STEM occupations is projected to grow 8.8% by 2028, and healthcare occupations, which generally require a strong STEM background, are projected to grow even more. Meanwhile, non-STEM occupations will only grow 5%". The same report affirms that jobs that require a STEM background are more likely to provide solid wages[28]. In addition,

[28] **Wages:** payment in return for work or services, esp that made to workmen on a daily, hourly, weekly, or piece-work basis. (Dictionary of Collins, 2024).

globally, the countries that prioritize STEM education have higher levels of innovation, as well as a bigger economic diversification, so, investing in this sector can help combat socio-economic inequalities and create opportunities for sustainable growth.

Forbidden Words

Defined by the United Nations, are non diplomatic terms participants must avoid to mention during their speeches on the debate and in the writing of resolution proyects

Forbidden Words	Permitted equivalents
First world countries	Developed countries
Third world countries	Developing countries
Gay[29]	Member of the LGBTIQ+ community
War[30]	Belic conflict
Rape	Sexual abuse
Terrorist	Extremist
Kill or murder	Deprive someone of their life
Death	Casualties
Assassination	Homicide
Army	Military forces
Money	Economic resources
Poor	Lack of resources
Okay	Yes or agree
Black[31]	Afrodescendant

[29] The word Gay is replaced by a more inclusive term, recognizing that not all people within the LGBTIQ+ community identify in the same way.
[30] The word War can be used in order to refer to historical contexts, such as the Cold War, the First World War, etc. It can only be used in the Security Council to refer to armed conflicts.
[31] The word Black, in reference to ethnicity, is not prohibited but it is recommended to limit its use and refer to this sector as a dark-skinned person or afrodescendant as the case may be.

Preambulatory Phrases

Preambulatory Phrases are used at the beginning of every Resolution Paper in order to give context about the resolutions made for the topic. Preambulatory Phrases must be written in italics followed by a sentence that gives said context. For each Resolution Paper there must be five sentences beginning with a Preambulatory Phrase.

Affirming	Desiring	Noting with deep concern
Alarmed by	Emphasizing	Noting with satisfaction
Approving	Expecting	Noting further
Bearing in mind	Expressing its appreciation	Observing
Believing	Fulfilling	Reaffirming
Confident	Fully aware	Realizing
Contemplating	Further deploring	Recalling
Convinced	Further recalling	Recognizing
Declaring	Guided by	Referring
Deeply concerned	Having adopted	Seeking
Deeply conscious	Having considered	Taking into consideration
Deeply convinced	Having examined	Taking note
Deeply disturbed	Having received	Viewing with appreciation
Deeply regretting	Keeping in mind	Welcoming

Operative Clauses

Operative Clauses are used at the beginning of every resolution within the Resolution Paper on the debated topic. They must be written in italics and bold.

Accepts	Endorses	Notes
Affirms	Draws the attentions	Proclaims
Approves	Emphasizes	Reaffirms
Authorizes	Encourages	Recommends
Calls	Expresses its appreciation	Regrets
Calls upon	Expresses its hope	Reminds
Condemns	Further invites	Requests
Confirms	Further proclaims	Solemnly
Congratulates	Further reminds	Affirms
Considers	Further recommends	Strongly
Declares accordingly	Further requests	condemns
Deplores	Further resolves	Supports
Designates	Has resolved	Takes note of
		Transmits
		Trusts

Personal notes