



UNESCO



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1. Welcome Letter from Committee Directors
Distinguished Delegates,

It is our utmost pleasure to welcome you to the UNESCO, United Nations Educational, Scientific and Cultural Organization Committee of HAYDARPASAMUN 2020.

I am a junior at Cağaloğlu Anatolian High School.

This year, UNESCO will deal with two agenda items: Effects of Global Warming on World Heritage Sites and Global Implementation of STEM. I genuinely hope that these critical topics can create a productive debate that each participant can ambitiously participate in and enjoy. This study guide had been assembled to give background and general knowledge about the agenda items. Delegates are anticipated to have done their further researches and gathered information. It is an honor for me to have prepared this committee for HAYDARPASAMUN 2020 for several reasons. Climate Change affecting the world in several aspects and specially the heritage sites is a crucial topic that we all individually and collectively take action. In the rush of everyday life, we tend to overlook certain things, and I am delighted that we will get the chance to discuss two that we might not have gotten a chance to otherwise.

I want to thank Secretary-General Zeynep Naz Coskun for giving me a chance to serve as the president chair for this committee and her constant support and belief in me.

Furthermore, I would like to thank my vice chair, Betül Kaplan, whom I consider a Co-Chair. It was an honor to work with you.

If you have any questions about the committee and the topic, please do not hesitate to contact me via tubatekin4a@gmail.com.

Sincerely,

Tuba TEKIN

2. Introduction to the Committee

UNESCO is one of the essential bodies of the United Nations and has an autonomous structure. It has many important missions for preventing wars and providing peace through cultural and educational interaction and communication. Further information about UNESCO's history, structure and aim are given subsequently.

A. History of UNESCO

As early as 1942, the European Countries was in war with Nazi Germany and their supporters and they have come together in the United Kingdom to participate in Conference of Allied Ministers of Education (CAME) for searching the ways of recovery for their educational system as once peace was restored and The Second World War was not too far. The progress became international as new governments decided to participate, including the United States of America. After the suggestion of CAME, they have decided to come together in London between the 1st-16th of November 1945 for establishing an organization that will address the issues about education and culture (ECO/CONF). As a matter of fact, the war ended with the opening of the conference. States came together by a representation of delegates from 44 countries that determine the creation of an organization that would

maintain the peace and culture with preventing new world wars and casualties along with providing intellectual and moral solidarity for mankind. Ultimately the UNESCO (United Nations Educational, Scientific and Cultural Organization) was founded by 37 countries' decision and after the vote of 21 countries, the UNESCO took charge on 4 November 1946. They have firstly met in Paris and from November 19 until December 10, 1946, they had their first session in the name of the General Conference of UNESCO.³⁰ Member states who applied had the right to vote. The political confronts and Cold War has always made the progress harder as UNESCO's aim is to prevent that kind of policy, but UNESCO has never stopped although some members quit from the UNESCO for political concerns, they have today all re-joined UNESCO except United States of America and Israel with their recent withdrawal.

B. Structure and aim of the UNESCO

Simply, the aim of the UNESCO is providing peace and safety for all of the nations, along with an international collaboration; scientific, cultural and educational communication, and so preventing official interstate wars and any kind of armed & unarmed violence. With this design, UNESCO also provides restoration and protection for any kind of cultural or educational distress (e.g. cultural heritages, natural beauties and for cultures and languages). Thus, UNESCO has organized 39 General Conference once a year between 1946 and 1952 and once per year after that time. Composed of 3 main administration and management units which are General Conference, Executive Board and the Secretariat, UNESCO is an autonomous part of the United Nations which had been affiliated through a relationship agreement, signed in 1946. Furthermore, UNESCO has also a Directory General for its' own. UNESCO is headed by a director-general selected by the General Conference. The director-general appoints the staff members and Julian Huxley -from the United Kingdom- was the UNESCO's first director-general.

Here is brief information about main management units of UNESCO: Units of UNESCO consisting of 195 member states' representatives, General Conference is the most authorized unit of UNESCO. All member states are represented in the General Conference and their political or military or economic power does not change their right of voting and they all have one vote and can be represented by a number of the delegates up to five. Member states must select their delegates after consulting the national educational, scientific, and cultural bodies in countries where UNESCO commissions are established. Taking place in Paris as default, General Conference decides main policies upon essential undertakings of UNESCO. It accepts simple majority voting except for the determinations about amending the UNESCO constitution or about the international convention. Member states are not bound by these conventions, but UNESCO requires them to obey these conventions along with the recommendations of UNESCO that are voted by Conference, General Conference also elects the Executive Board and Director-General.

3. Agenda Item A: Effects of Global Warming on World Heritage Sites

3.1. Significant Definitions

A. Global Warming and Climate Change

The cultural heritage of the world has been threatened by many different situations throughout history, mainly by the first and the second world war, but the Climate Change is the biggest and fastest-growing threat towards the Historical Heritage both culturally and naturally. For example, at the Conference on Climate Change and Cultural Heritage in Athens, scientists have stated that Climate Change has been threatening the Cultural Heritage that is in Greece, including Parthenon Temple in the Acropolis, one of the most visited places in the world.

To understand the matter fully, delegates need to know more about Climate change and the effects of Global Warming in general.

First, we need to define two concepts often mistaken for synonyms: climate change and global warming. There is an important difference between them, however, given that it is global warming that *causes* climate change. As the planet's temperature increases more than it would naturally, the climate varies.

Global warming is the long-term rise in the average temperature of the Earth's climate system. It is a major aspect of climate change and has been demonstrated by direct temperature measurements and by measurements of various effects of warming. *Global warming* and *climate change* are often used interchangeably. But more accurately, *global warming* is the mainly human-caused increase in global surface temperatures and its projected continuation, while *climate change* includes both global warming and its effects, such as changes in precipitation. While there have been prehistoric periods of global warming, many observed changes since the mid-20th century have been unprecedented over decades to millennia.

B. World Heritage Sites

A World Heritage Site is a landmark or area, selected by the United Nations Educational, Scientific and Cultural Organization (UNESCO) for having cultural, historical, scientific or another form of significance, which is legally protected by international treaties. The sites are judged to be important for the collective and preservative interests of humanity.

To be selected, a World Heritage Site must be an already-classified landmark, unique in some respect as a geographically and historically identifiable place having special cultural or physical significance. It may signify a remarkable accomplishment of humanity, and serve as evidence of our intellectual history on the planet.

The sites are intended for practical conservation for posterity, which otherwise would be subject to risk from human or animal trespassing, unmonitored/uncontrolled/unrestricted access, or threat from local administrative negligence. Sites are demarcated by UNESCO as

protected zones. The list is maintained by the international World Heritage Program administered by the UNESCO World Heritage Committee, composed of 21 "states parties" that are elected by their General Assembly.

3.2 Introduction to the Agenda Item

There are more than 1000 World Heritage properties in 163 countries and a great many of them are important tourist destinations. At its best, tourism drives economic development and brings needed financial and social benefits, but, as this report demonstrates, rapid or unplanned tourism developments, or excessive visitor numbers, can also have a negative effect on the properties. Climate change is likely to exacerbate existing stresses and bring direct impacts of its own. Sea-level rise, higher temperatures, habitat shifts and more frequent extreme weather events such as storms, floods and droughts, all have the potential to rapidly and permanently change or degrade the very attributes that make World Heritage sites such popular tourist destinations

In adopting the Paris Agreement in December 2015, 195 countries acknowledged the importance of reducing greenhouse gases to a level that will keep global average temperature rise since pre-industrial times well below 2°C. Achieving this goal is vital for the future of World Heritage.

3.2.1 Current Situation

Reports list 31 natural and cultural World Heritage sites in 29 countries that are already being impacted by climate change and are vulnerable to increasing temperatures, melting glaciers, rising seas, intensifying weather events, worsening droughts, and longer wildfire seasons. Authored by the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environment Program (UNEP), and the Union of Concerned Scientists (UCS), the report highlights the urgent need to:

- Identify the World Heritage sites that are most vulnerable to climate change and implement policies and provide resources to increase resilience at those sites,
- Ensure that the threat of climate impacts is taken into account in the nomination and listing process for new World Heritage sites,
- Engage the tourism sector in efforts to manage and protect vulnerable sites in the face of climate change and educate visitors about climate threats,
- Increase global efforts to meet the Paris Agreement climate change pledges in order to preserve World Heritage sites for future generations.

A. Cultural Landscapes

Cultural landscapes are not only limited to actual tangible heritage such as specific agricultural forms or built environments but also include more intangible aspects such as the rituals which occur within a landscape and the symbolism that also serves to embody generations of history experienced by those who engage with the landscape. Cultural landscapes are perceived as the interface between nature and culture, including both tangible and intangible. In the context of World Heritage, UNESCO define cultural landscapes as cultural properties that “are illustrative of the evolution of human society and settlement over time, under the influence of the physical

constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal” Three main types of categories of cultural landscape are identified by UNESCO (2005): designed and created landscapes (parks and gardens, historic and/or religious monuments), organically evolved landscape and the associative cultural landscape which has religious, artistic or cultural associations.

For example, there is a great risk to cultural heritage from SLR around Pacific Island coastal areas since coastal sedimentation has buried many heritage sites. Wilbanks, Ensigner, and Rajan (2007) have conducted similar research in the Indian city of Cochin and found that SLR not only damages cultural heritage sites but also places pressure on fisheries.

B. Built Environments

The built environment plays host to many of the different issues that emerge from climate change. Research into climate change impacts on the built environment is strongly focused on the effects of environmental pollution and changed climatic conditions on heritage buildings and historic monument Bonazza, Messina, Sabbioni, Grossi, and Brimblecombe (2009) note the scientific awareness of the variety of scenarios which could eventuate due to climate change but also point out that “many open questions exist concerning the future trends of individual damage processes”. Addressing uncertainty is important to develop effective conservation strategies.

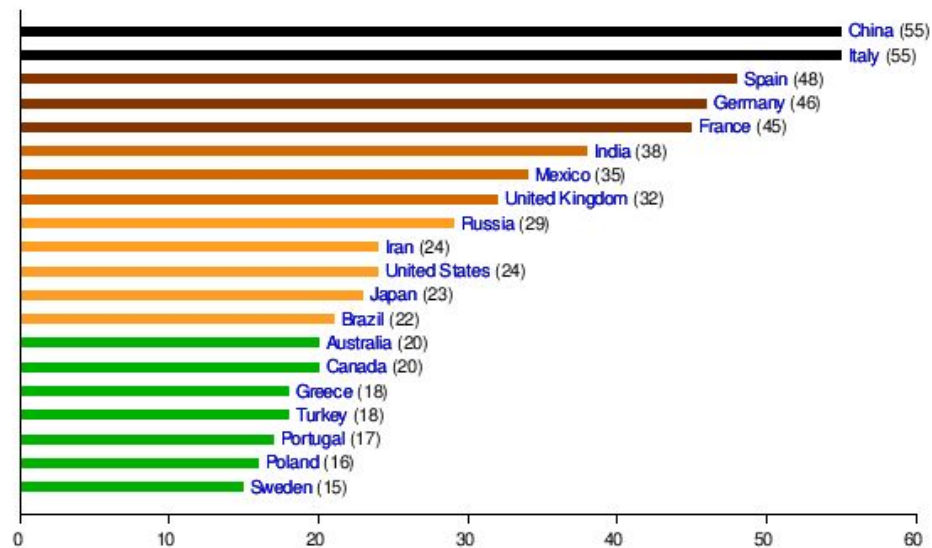
C. Buried Archaeology

Global-change archaeology recognizes that past human decision-making processes in terms of both culture and attitude and “variable time and space scales, the concept of landscapes as the cumulative history of human-environmental interactions, agency, and meaning”, play “equally significant roles” in archaeology. Some scientists studied the impact of climate change on river catchments in Britain and noted that while there appears to be an emphasis placed on research on the built environment in cultural heritage research there is also much to be gained by policy-makers from empirical evidence collected from archaeological sites. Also, preservation schemes designed to alleviate flood risk can potentially cause more damage to buried archaeology than flooding.

D. Parks and Gardens

Climate change has already created a difficult scenario for replanting in landscapes where historic sites have suffered prior storm damage. Temperature changes, coupled with excessive rainfall and wind, have hampered efforts to restore damaged English parks and gardens, while high tides and flooding have also placed formerly safe historic parks and gardens sites at risk from erosion. Similarly, conservation planning frameworks for parks and gardens were based on a sense of climatic and geographic stability which is untenable when placed in the context of climate change.

3.2.2 List of the World Heritage Sites that are at Risk



Countries with fifteen or more World Heritage Sites as of July 2019

Africa

- Bwindi Impenetrable National Park, Uganda
- Ruins of Kilwa Kisiwani and Ruins of Songo Mnara, United Republic of Tanzania
- Cape Floral Region Protected Areas, South Africa
- Lake Malawi National Park, Malawi

Arab World

- Ouadi Qadisha (the Holy Valley) and the Forest of the Cedars of God (Horsh Arz el-Rab), Lebanon
- Wadi Rum Protected Area, Jordan
- Ancient Ksour of Ouadane, Chinguetti, Tichitt and Oualata, Mauritania

Asia and the Pacific

- Rock Islands Southern Lagoon, Palau
- Hoi An Ancient Town, Vietnam
- Shiretoko, Japan
- Komodo National Park, Indonesia
- Sagarmatha National Park, Nepal
- Lagoons of New Caledonia: Reef Diversity and Associated Ecosystems (France)
- Rice Terraces of the Philippine Cordilleras, Philippines
- Golden Mountains of Altai, Russian Federation
- East Rennell, Solomon Islands

North America

- Yellowstone National Park, United States of America
- Statue of Liberty, United States of America
- Old Town Lunenburg, Canada
- Mesa Verde National Park, United States of America

Latin America

- Port, Fortresses and Group of Monuments, Cartagena, Colombia
- Coro and its Port, Venezuela
- Galápagos Islands, Ecuador
- Huascarán National Park, Peru
- Atlantic Forest South-East Reserves, Brazil
- Rapa Nui National Park (Easter Island), Chile

Europe

- Ilulissat Icefjord (Greenland), Denmark
- Heart of Neolithic Orkney, United Kingdom of Great Britain and Northern Ireland;
Stonehenge, Avebury and Associated Sites, United Kingdom of Great Britain and Northern Ireland
- The Wadden Sea, Netherlands, Germany and Denmark
- Venice and its Lagoon, Italy

Australia

- Great Barrier Reef: The Australian government requested that UNESCO remove a case study on the Great Barrier Reef from the final report. UCS believes that we need to have these important conversations publicly, which is why we published an updated version of the case study on our blog at the same time the report was released. For further information regarding this issue, please see lead author Adam Markham's statement on the Australian government's intervention.

3.2.3 Nature-based Solutions on Climate Change

Natural World Heritage sites are not just iconic places with exceptional nature, they also provide benefits that contribute to human well-being, according to 'The Benefits of Natural World Heritage' study by IUCN and UNEP's World Conservation Monitoring Centre. Natural World Heritage sites contribute to global climate stability by storing significant amounts of carbon. Forests found in World Heritage sites across the tropical regions store 5.7 billion tons of carbon. Two-thirds of natural sites on the UNESCO World Heritage List are crucial sources of water and about half help prevent natural disasters such as floods or landslides.

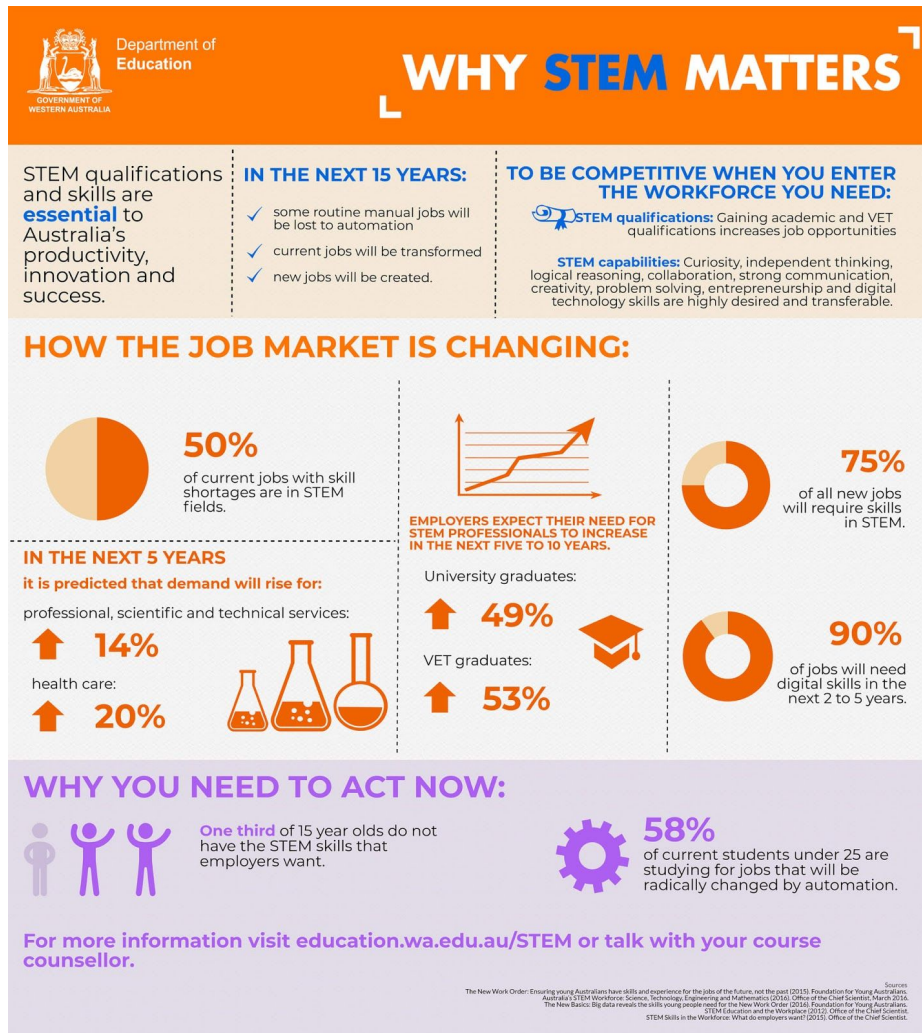
In India and Bangladesh, the Sundarbans' 2,200km mangrove coastline offers flood protection, which would otherwise require an investment of US\$ 300 million in man-made infrastructure. The Benefits report features a total of 23 case studies, including three which highlight how World Heritage sites contribute to responding to climate change:

- Sundarbans National Park (India) and The Sundarbans (Bangladesh)
- Ibiza, Biodiversity and Nature (Spain)
- Canadian Rocky Mountain Parks (Canada)

4. Agenda Item B: Global Implementation of STEM

4.1. Presentation of STEM

STEM is an approach to learning and development that integrates the areas of science, technology, engineering, and mathematics. Through STEM, students develop key skills including problem-solving, creativity, critical analysis, teamwork, independent thinking, initiative, communication, digital literacy. The world and the needs of humanity are changing every day, and those changes affect the global economy as well. In first and second world countries, current jobs are disappearing due to automation and new jobs are emerging every day as a result of technological advances. While the first and the second world countries rebuild their economy depending on STEM, third world countries need STEM to develop their economy and technology and unlock the potential of their youth. Employer demand for STEM qualifications and skills is high and will continue to increase in the future. Currently, 75% of jobs in the fastest growing industries require workers with STEM skills.



STEM empowers individuals with the skills to succeed and adapt to this changing world. To have a quality job in the future, the youth needs STEM education.

A. Economic Progress

STEM education fosters a skill set that stresses critical thinking and problem-solving abilities. This type of skill set encourages innovation among those who possess it. Similarly, a country's economic development and stability are dependent on its ability to invent and develop new products. Technological innovation in the modern age is only obtainable through the expertise of specialists with knowledge of recent STEM research. Therefore, the role of STEM in developing countries is important because a country's economy is completely dependent on new developments from technology and science.

Overall, the economic performance of metropolises with higher STEM-oriented economies is superior to those with lower STEM-oriented economies. Within these metropolises, there is lower unemployment, higher incomes, higher patents per worker (a sign of innovation), and higher imports and exports of gross domestic products. According to many experts, this holds at a national level as well. The world's most successful countries tend to efficiently utilize the most recent scientific developments and technologies.

B. Health Care

Over the past 50 years, the Western world has made remarkable progress in medical science. With breakthroughs developed through vaccinations and treatment, many serious diseases in developing countries are now curable. Common causes of death for children in developing countries are diseases such as malaria, measles, diarrhoea, and pneumonia. These diseases cause a large death toll in developing countries, but they have been largely eradicated from developed countries through proper vaccinations. As a result, these diseases take a large toll on the children of developing countries. In developing countries, a high percentage of the population is under 15 years of age. As such, it is important to prevent diseases that affect children under 15.

The role of STEM in developing countries with preventable diseases will be vital to improving health and life expectancy rates.

C. The Future of World

Societies seeking new scientific knowledge and encouraging creative and technological innovations will be able to properly utilize new technologies, increase productivity, and experience long term sustained economic growth. The developing societies that succeed will be able to improve the living standards of its population. As our world becomes more interconnected, countries prioritizing STEM education and research will make significant advances in alleviating poverty and sustaining economic, cultural and societal growth.

Undoubtedly, the role of STEM in developing countries is of significant importance, just as it is in our modern world.

4.2 Introduction to the Agenda Item B

As the study guide stated before, STEM is the need of world youth in general. Science, Technology, Engineering, and Mathematics are important for building and maintaining the development of any successful country. From the medical scientists, who develop treatments for diseases, to the civil engineers, who design and build a nation's infrastructure, every aspect of human life is based on the discoveries and developments of scientists and engineers. The importance of STEM today should not be underestimated as its role is becoming increasingly significant in the future. The technology produced today is altering people's lives at a rate faster than ever before. Consequently, it is vital for countries seeking to reduce their poverty levels to adopt new scientific research and technology. In doing so, these countries can improve their economy, health care system and infrastructure. As this impacts all aspects of society, the role of STEM in developing countries is of significant importance.

UNESCO believes in the equality between all people, and that's the main reason why UNESCO believes in the Global Implementation of STEM and tries to make it possible for any student regarding the gender and race differences -especially for students who get an education in the third world countries.

It is also important for both genders to have STEM education equally. The STEM and Gender Advancement (SAGA) project is a global UNESCO project launched in 2015 to strengthen UNESCO's work in support of gender equality in Science, Technology, and Innovation (STI). SAGA's main objective is to offer governments and policymakers a variety of tools to help reduce the current global gender gap in STI fields existing at all levels of education and

research. By reaching this objective, the SAGA project will contribute to increasing the visibility, participation, and recognition of women's contributions in Science, Technology, Engineering and Mathematics (STEM).

A. STEM Education: Major Parties Involved

UNESCO's main goal is the Global Implementation of STEM, but the reality of our world is the fact that so many young people aren't able to get STEM education or any education at all.

While STEM education is a need for the new generation to be able to find quality jobs in the new industry it is also a need for the second and third world countries to develop their economy and unlock their potential as mentioned in the study guide before.

Those pieces of information below are taken from Wikipedia to inform the delegates a little bit more about STEM education in different countries around the world.

United States

In the United States, the acronym began to be used in education and immigration debates in initiatives to begin to address the perceived lack of qualified candidates for high-tech jobs. It also addresses a concern that the subjects are often taught in isolation, instead of as an integrated curriculum. Maintaining a citizenry that is well versed in the STEM fields is a key portion of the public education agenda of the United States. The acronym has been widely used in the immigration debate regarding access to the United States work visas for immigrants who are skilled in these fields. It has also become commonplace in education discussions as a reference to the shortage of skilled workers and inadequate education in these areas. The term tends not to refer to the non-professional and less visible sectors of the fields, such as electronics assembly line work.

Australia

The Australian Curriculum, Assessment and Reporting Authority 2015 report entitled, National STEM School Education Strategy, stated that "A renewed national focus on STEM in school education is critical to ensuring that all young Australians are equipped with the necessary STEM skills and knowledge that they will need to succeed." Its goals were to:

Ensure all students finish school with strong foundational knowledge in STEM and related skills and that the students are inspired to take on more challenging STEM subjects.

Canada

Canada ranks 12th out of 16 peer countries in the percentage of its graduates who studied in STEM programs, with 21.2%, a number higher than the United States, but lower than France, Germany, and Austria. The peer country with the greatest proportion of STEM graduates, Finland, has over 30% of their university graduates coming from science, mathematics, computer science, and engineering programs.

SHAD is an annual Canadian summer enrichment program for high-achieving high school students in July. The program focuses on academic learning, particularly in STEAM fields. Scouts Canada has taken similar measures to their American counterpart to promote STEM fields to youth. Their STEM program began in 2015.

In 2011 Canadian entrepreneur and philanthropist Seymour Schulich established the Schulich Leader Scholarships, \$100 million in \$60,000 scholarships for students beginning their university education in a STEM program at 20 institutions across Canada. Each year 40 Canadian students

would be selected to receive the award, two at each institution, to attract gifted youth into the STEM fields. The program also supplies STEM scholarships to five participating universities in Israel.

China

To promote STEM in China, the Chinese government issued a guideline in 2016 on national innovation-driven development strategy, instructing that by 2020, China should become an innovative country; by 2030, it should be at the forefront of innovative countries; and by 2050, it should become a technology innovation power.

In February 2017, the Ministry of Education in China has announced to officially add STEM education into the primary school curriculum, which is the first official government recognition of STEM education. And later, in May 2018, the launching ceremony and press conference for the 2029 Action Plan for China's STEM Education was held in Beijing, China. This plan aims to allow as many students to benefit from STEM education as possible and equip all students with scientific thinking and the ability to innovate. In response to encouraging policies by the government, schools in both public and private sectors around the country have begun to carry out STEM education programs.

However, to effectively implement STEM curricula, full-time teachers specializing in STEM education and relevant contents to be taught are needed. At present, China lacks qualified STEM teachers and a training system is yet to be established. Many Chinese people and private schools have for the last few years sent their principals and top teachers for STEM curriculum development courses in Singapore, conducted by St. Uriel Education (a top STEM curriculum specialist, employing cutting edge education robotics, coding, and incorporating important elements of life skills, values and ethics that benefit students).

Europe

Several European projects have promoted STEM education and careers in Europe. For instance, Scientix is European cooperation of STEM teachers, education scientists, and policymakers. The Sci-Challenge project used a social media contest and the student-generated content to increase the motivation of pre-university students for STEM education and careers.

Hong Kong

STEM education has not been promoted among the local schools in Hong Kong until recent years. In November 2015, the Education Bureau of Hong Kong released a document entitled *Promotion of STEM Education*, which proposes the strategies and recommendations on promoting STEM education.

India

India is next only to China with STEM graduates per population of 1 to 52. The total fresh STEM graduates were 2.6 million in 2016. STEM graduates have been contributing to the Indian economy with well-paid salaries locally and abroad since last two decades. The turnaround of the Indian economy with comfortable foreign exchange reserves is mainly attributed to the skills of its STEM graduates.

Philippines

In the Philippines, The STEM name is used as a strand for Senior High School (Grades 11 and 12) students assigned by the Department of Education or DepEd.

Singapore

STEM is part of the Applied Learning Programme (ALP) that the Singapore Ministry of Education (MOE) has been promoting since 2013, and currently, all secondary schools have such a programme. It is expected that by 2023, all primary schools in Singapore will have an ALP. There are no tests or exams for ALPs. The emphasis is for students to learn through experimentation – they try, fail, try, learn from it and try again. The MOE actively supports schools with ALPs to further enhance and strengthen their capabilities and programmes that nurture innovation and creativity.

Thailand

In 2017, Thai Education Minister Dr Teerakiat Jareonsettasin said after the 49th Southeast Asia Ministers of Education Organisation (SEAMEO) Council Conference in Jakarta that the meeting approved the establishment of two new SEAMEO regional centres in Thailand. One would be the STEM Education Centre, while the other would be a Sufficient Economy Learning Centre.

Turkey

Turkish STEM Education Task Force (or FeTeMM) is a coalition of academicians and teachers who show an effort to increase the quality of education in STEM fields rather than focussing on increasing the number of STEM graduates.

Qatar

In Qatar, AL-Bairaq is an outreach program to high-school students with a curriculum that focuses on STEM, run by the Center for Advanced Materials (CAM) at Qatar University. Each year around 946 students, from about 40 high schools, participate in AL-Bairaq competitions. AL-Bairaq make use of project-based learning, encourages students to solve authentic problems, and inquires them to work with each other as a team to build real solutions. Research has so far shown positive results for the program.

Vietnam

In Vietnam, beginning in 2012 many private education organizations have STEM education initiatives.

In 2015, the Ministry of Science and Technology and Liên Minh STEM organized the first National STEM day, followed by many similar events across the country.

B. Gender Equality

More girls are in school today than ever before, but they do not always have the same opportunities as boys to complete and benefit from an education of their choice. Too many girls and women are held back by biases, social norms and expectations influencing the quality of the education they receive and the subjects they study. They are particularly underrepresented in science, technology, engineering and mathematics (STEM) education, and consequently in STEM careers.

According to the UNESCO groundbreaking report *Cracking the code: Girls' and women's education in STEM*, only 35% of STEM students in higher education globally are women, and differences are observed within STEM disciplines. For example, only 3% of female students in higher education choose information and communication technologies (ICT) studies. This gender disparity is alarming, especially as STEM careers are often referred to as the jobs of the future, driving innovation, social wellbeing, inclusive growth and sustainable development. UNESCO is giving special attention to this issue as part of its efforts to promote the empowerment of women and girls through education and as a response to its Member States' decision on UNESCO's role in encouraging girls and women to be leaders in STEM, including arts and design.

4.3 Points to Be Addressed

- a. What can countries do to improve STEM education?
- b. How can third world countries provide STEM education in their education system, and if they already have STEM education what can they do to make it more possible for every student to have STEM education?
- c. What can be done to raise public awareness about the importance of STEM education?
- d. What are UNESCO's responsibilities to make the global implementation of STEM?
- e. How can STEM education in public schools improve?
- f. What can be done to give STEM education to girls equally?

5. Further Reading&Bibliography

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