Topic #1: Reducing Gender Gap in STEM Education and Workforce

I. Background

Despite the advancement in women's rights the world has seen in the last decades (and its steady progression), the underrepresentation of women in the STEM (Science, Technology, Engineering, and Mathematics) field is still staggering. Statistics from 2023 show that women represent just 18% of the STEM field in the United States, 17% in Europe, 16% in Japan, and 14% in India. These differences are worrying, as they imply a lack of inclusion and diversity, which ultimately limits the STEM field and its potential. Considering the new technological advances the world is currently facing (such as AI) and the concerning emergence of many extremist regimes and ideologies, it is imperative the gender gap be closed, some of many reasons being the potential economic boost and the promotion of diversity and inclusion, leading to more innovative solutions to societal challenges.

There are multiple factors contributing to the gender gap in STEM, one of the most prominent being the stereotypes related to this field. Most people ironically associate STEM fields with men and masculine qualities, even though in the 1970's women dominated in STEM sectors and played major roles in some of their fields (i.e. computing jobs and mathematics). Other factors include a lack of female role models in the field, unconscious bias when hiring, and a work-life balance (imbalance), as STEM jobs can be demanding and don't leave much time for starting and raising a family.

Though no country has legislation concerning the STEM gender gap, most countries still have clauses in their legislation limiting women's rights in one way or another, thus discriminating against women and contributing to the issue. However, there are international treaties that promote women's rights and indirectly (but positively) affect the STEM gender gap. For example, the 2030 Agenda for Sustainable Development, though not legally binding, commits countries to complete gender equality in education, an important steppingstone for STEM promotion and women's opportunities to explore STEM fields. Another treaty, ratified by 189 states, is the 1979 Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), aims to do the same as the ASD, with regard to the legal obligations of countries towards equality in education.

Important steps that could help bridge the gap are also the demolishment of the gender pay gap, the inclusion of family-friendly policies (not only in workplaces but in schools as well), and the limitation of biases (even unconscious ones) in grant funding and other career opportunities. Promoting female role models and providing development opportunities to women looking to start a career in STEM is crucial to the reduction of this global problem.

II. UN Involvement

The United Nations Commission on the Status of Women (UNCSW, CSW) falls under the United Nations Economic and Social Council (ESOSOC), one of the principal organs of the UN. The CSW's goal is to promote equality in education and the workforce all over the world.

Another UN body for women's rights is the United Nations Entity for Gender Equality and the Empowerment of Women, also known as UN Women. Though not actively involved in the STEM gender gap, it fully supports its reduction, as seen in the UN Women's statement for the International Girls in ICT Day 2024. It is also the convener of the Generational Equality Action Coalition on Technology and Innovation, a movement looking to support females in STEM fields.

In 2014, as an initiative of a resolution passed by the Member States of the International Telecommunication Union, the UN declared an International Girls in ICT Day, which falls on the fourth Thursday in April and aims to create awareness for the need of more females in the information and communications technology sector.

In 2015, the UN established the International Day of Women and Girls in Science (February 11th), aiming to raise awareness about the need to diversify STEM and to abolish the barriers preventing girls and women from accessing these sectors.

The UN also partners with programs and initiatives such as the African Girls Can Code Initiative (AGCCI), a program that trains young women in digital programming and empowers them to become programmers, coders, and designers. A partnership with this initiative in particular is spearheaded by the African Union Commission, UN Women, UNESCO, UNICEF etc.

III. Questions to Consider

1. How big is the STEM gender gap in my country? Does it need to be bridged?
2. Is my country working with any program or initiative looking to reduce the gender gap?
3. Does my country have legislation concerning gender equality in education/any of the factors contributing to the STEM gender gap?
4. Does my country support any of the UN treaties promoting gender equality in education?
5. Has my country taken any steps to reduce the gender gap in STEM fields?

IV. Useful links

MIT – an overview of the topic

https://professionalprograms.mit.edu/blog/leadership/the-gender-gap-in-stem/

UN Women

https://www.unwomen.org/en

UN Chronicle – an article by the founder of the nonprofit Girls Who Code

https://www.un.org/en/un-chronicle/closing-gender-gap-science-and-technology-0?fbclid=IwZXh0bgNhZW0CMTAAAR0BZhQNU9x5fwgTOdJcxFMSJ27hRt9oU0btZTWA0PeYtJFTeHR6BxhGkio_aem_t-Gifw4AeKngmR8-5TyZLg

UNDP – 2023 Policy Dialogue on Women in Science: Pathways towards Breaking Barriers in STEM summary

https://www.undp.org/china/press-releases/empowering-women-science-un-policy-dialogue-sheds-light-pathways-gender-equality-stem-fields?fbclid=IwZXh0bgNhZW0CMTAAAR0SIpdABjr2XuOMMY5Ro6Zs1GHqV5Z4OwXTfeqmDdVj2qyiqs-7tmXdM9Q_aem_v6ql7by_Tk54XW2wGqT87A