

Role of the Women in Science and Technology for Sustainable Tourism Industry in Sri Lanka:

Policy reforms for the business startups and technology innovations

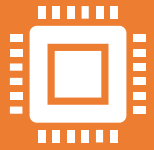
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At the Conference on “The contribution of the women in Science and technology to the technology -driven sustainable Tourism Industry in Sri Lanka” on the 20/12/2023-organized by the Organization for Women in Science for the Developing World (OWSD)



Role of Science and Technology for Sustainable Development



Science, technology, engineering, and mathematics (STEM) are vital to the economic and social prosperity of countries.



These fields produce thinkers, researchers, and technicians who advance progress in health, education, food security, nutrition, transportation, infrastructure, energy, communications, and other sectors.



STEM innovations play a central role in solving global challenges, such as overcoming disease, protecting the environment, increasing energy access and efficiency, and enhancing education (UN 2017)

Entrepreneurship & Role of science and technology for Sustainable development



GEM 2022/23 Women's Entrepreneurship Report: Challenging Bias and Stereotypes

- **Entrepreneurship** plays a vital role in the economic development of any nation, and Sri Lanka is no exception.
- Entrepreneurship acts as a catalyst for innovation, fostering the adoption of new technologies and driving economic diversification
- Promoting women entrepreneurship can have a significant impact on Sri Lanka's economy.
- Although women account for about half of the country's population, their participation in entrepreneurship remains relatively low.
- Encouraging women to start businesses and providing them with the necessary support can unleash their untapped potential.
- According to the Global Entrepreneurship Monitor's Women's Entrepreneurship Index, Sri Lanka ranked 62nd globally in 2021.
- **By fostering women entrepreneurship, Sri Lanka can drive economic growth while promoting gender equality.**

“A Prelude to a Bright Future”

82. The creative economy

“Creativity plays an important role in culture and society. The foundation of the creative economy is technology and innovation. Therefore, I invite relevant stakeholders to take the lead in creating collaboration between creative spaces, industry and academia. The government is ready to assist in building the creative economy of Sri Lanka”. Budget Speech

HR and Challenges in the STEM Field

1. Women and girls are underrepresented in fields of science, technology, engineering and mathematics (STEM).
2. Professions in STEM fields are majorly dominated by men, and women find it difficult to match up to them in these areas.
3. According to a 2022 report by World Bank,(2020) women account for only 28% of engineering graduates and in fields like artificial intelligence, only 1 on 5 professionals are female.
4. Gender bias and stereotypes are among the major contributors to suppressing women from exploring careers in STEM fields.
5. Pressure to conform to societal norms, forced marriages and childbirth are among the daunting reasons why women in STEM face challenges.

Whole world's GDP can be increased by US\$ 5.3 trillion by 2025 by closing the gender gap in economic participation by 25% over the same period (WEF, 2017)

HR and Challenges in the STEM Field

- In most households, women are majorly responsible for running the family, and this burden restricts them, to an extent, from pursuing their dream career.
- This discrimination is faced especially by marginalized women, girls from disadvantaged groups, elderly women according to the United Nations.
- On the whole, there is a barrier to women dreaming for successful careers in their field of interest.
- However, It is often said that a family and a nation's betterment lie in the education of women.
- Even though the situation is improving, there is a long way to go.

Tourism Industry towards Sustainable Development

- Tourism is the third largest export earner in Sri Lanka. (Sri Lanka Tourism Development Authority: Strategic Plan 2017-2020).
- Two major characteristics of Sri Lanka's labour market are a **lack of female labour force participation** and large scale youth unemployment. (World Travel & Tourism Council, "Travel & Tourism Economic Impact 2019)
- **Globally, the tourism sector has been known to provide employment on a large scale to women and youth.** (World Travel & Tourism Council, "Travel & Tourism Economic Impact 2019)
- Women make up about 70 percent of the workforce of the tourism industry across the world.

However, in Sri Lanka there are several barriers to women's participation in the tourism sector - which is also one of the most lucrative sectors for employment.



Tourism Industry : Business startups and technology innovations

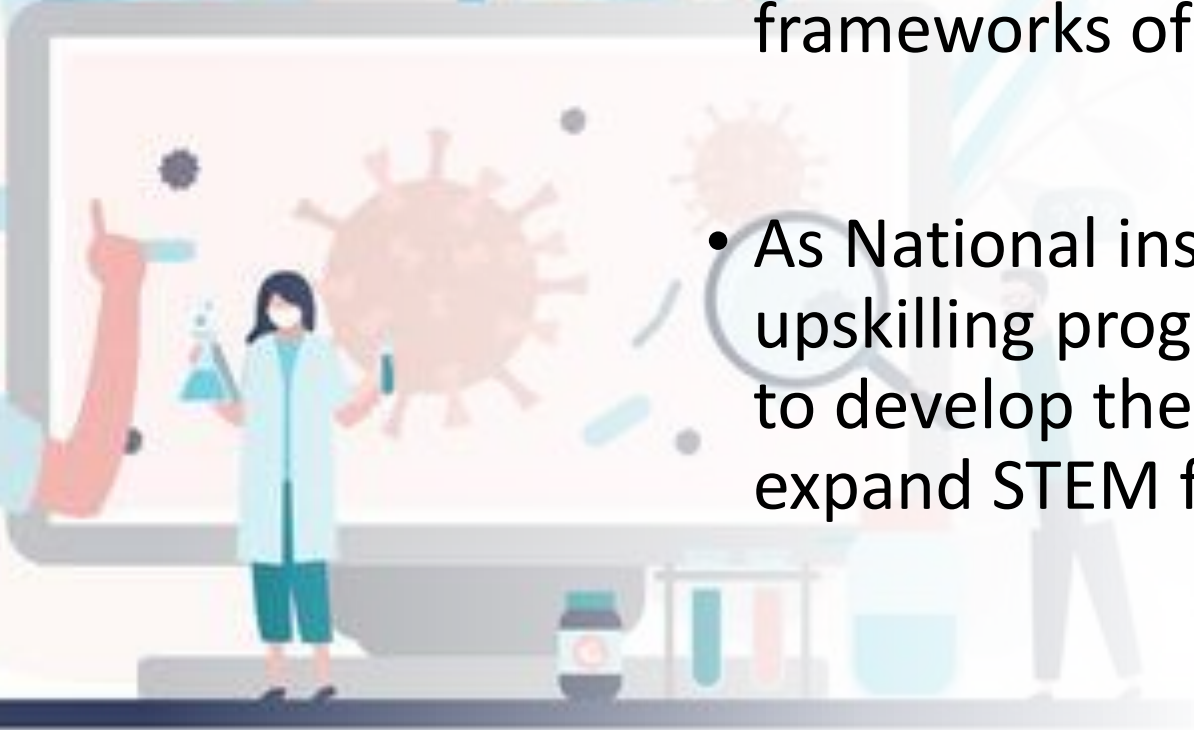
- “.....As the startup ecosystem in Sri Lanka is predominantly tech-oriented, this has organically resulted in a male dominated ecosystem. While women are involved in the tech industry, they fail to be included in the respective circles, which to an extent is by choice, however a main reason is cultural limitations” (Sri Lanka Startup Report 2019)
- “.....it should be noted that many non-tech startups focusing on food and beverages, health and wellness and fashion are mostly female dominated. Awareness on these issues would help shed light on female talent and increase representation in the startup space (Sri Lanka Startup Report 2019)

Sri Lanka needs more women in STEM?

- As Sri Lanka navigates this economic crisis, addressing the gender gap in STEM fields is more crucial than ever.
- With an increasing number of jobs being digitalized, it is essential that women are not left behind in this transition and contribute to the development of a more equal and sustainable future economy.
- Women in Sri Lanka's workforce predominantly belong to the low-skilled and informal workforce, and continue to be a minority in sectors like the tech industry, which is one of the fastest-growing and highest-paying sectors worldwide.
- Closing the gender gap in STEM will ensure that women have access to more high-skilled employment and are meaningfully included in the economic growth that is driven by technology and innovation.

Necessary steps to close the gender gap in STEM in Sri Lanka: Role of Scientists...

- Closing the gender gap in STEM in Sri Lanka will require targeted and continued efforts in society, institutions, and the operational frameworks of STEM fields.
- As National institutes, we must develop upskilling programs for women in society to develop their capacity to thrive in and expand STEM fields.





- Facilitating in reforming our educational structures and approaches.

Our schools and universities must allow and encourage students to explore their interests regardless of their gender, and expand from current approaches

Our educational structures must celebrate those who have crossed gender lines, and pave the path for innovators, scientists, and artistes alike.

Necessary steps to close the gender gap in STEM in Sri Lanka: Role of Scientists...


- Curricula across all levels of education must build an understanding of social issues along with critical thinking skills to recognize and deconstruct biases and discrimination.
- Academics must increasingly examine issues of science, technology, engineering and math through the lens of gender, in line with growing research that makes vital discoveries when adopting sex and gender disaggregated analysis.

6,064 Researchers (Head Count) were employed in domestic R&D activities and their Full-Time Equivalent value was 2267 National R&D Survey of Sri Lanka, 2020 (NSF).

There is almost 50:50 representation (gender-wise) of scientists in the Sri Lankan research community as per the National R&D Survey of Sri Lanka, 2020 (NSF).



Women in science can change world !

- The future of STEM must belong to all of us.
 - By closing the gender gap in STEM fields, we not only empower women and girls, but we also unleash a wealth of creativity and innovation as well as necessary inclusion and progress for society as a whole.
 - It's time to take action and break down the barriers that limit women's contributions in STEM fields.
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Women in science can change world !

National Tourism Policy of Sri Lanka

04 Policy Statement:

- Ensure the digital transformation of Sri Lanka Tourism assuring tourism safety and expanding the innovation capacity the industry in order to facilitate investments based on open innovation infrastructure or new technology facilitating local innovation ecosystems.

NSF Programme for Women in Engineering, Science, and Technology (WEST)

- The WEST programme will cater to women with a STEM background and empower them to contribute to the science, technology, and innovation ecosystem.
- Through the WEST initiative, NSF shall provide a separate platform to scientifically inclined women researchers, scientists, and technologists.
- This would go a long way towards filling a “skills gap” of women with a STEM background