



Theme 4: Working in Partnership to address the Sustainable Development Goals, with particular emphasis on Goal 5 and its relationship with the other Goals

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Theme 4: The SDGs, Goal 5, & Relationships to Other Goals



Goal 5 of the SDGs is **Gender Equality**: specifically ensuring that women are not harmed or discriminated against; have equal rights; are heard and empowered; and have equal access to all opportunities, including leadership and decision-making roles.

In engineering and technology this means ensuring that women are equally represented at all levels, but also that engineering and technology is used in ways that empower and support the equality of women globally.

The work of Theme 4 is to understand the relevance of Goal 5 to engineers and engineering, and to focus on the impact of gender equality on each of the SDGs individually.

Theme	WIE Actions	Deliverables	Ultimate Outcomes
Theme 4: Addressing the SDGs	<p>4.1 Understanding Goal 5 and map the Targets of Goal 5 to engineering and engineers</p> <p>4.2 Examine the gender perspective in relation to the SDGs, looking at ways that engineering can address disproportionate disadvantage faced by women</p> <p>4.3 Deliver against the WFEO Climate Change Declaration to <i>'Use our global influence and connections to gather evidence to illuminate the effect of climate change on women and disadvantaged groups worldwide, and seek to use this information to ensure that no one is left behind.'</i></p> <p>4.4 Understand the work of our own WIE members in relation to the SDGs they work on.</p> <p>4.5 Bring the gender perspective into the work of all of the WFEO committees, to mainstream gender perspective work</p> <p>4.6 In collaboration with other WIE themes, organisation of the annual Virtual Art Competition for the engagement of young girls in Africa to combine engineering and art</p>	<ol style="list-style-type: none"> Develop understanding and corresponding document which maps goal 5 targets with potential technological solutions, and identifies any missing technologies Set of 17 pop up banners that can be used in displays, once for each SDG, showing the gender perspective in relation to each Continued conversations and interventions about women's role in climate change, and how engineering and technology can address these issues. A database of the biographies of women engineers indicating which sustainable development goals they are working on, giving us access to experts who can speak on particular topics. Evidence that committees have understood and embedded gender perspective into their own committee work Delivery of art competition to engage young girls in Africa to combine engineering and art 	<ul style="list-style-type: none"> Use of engineering and technology to empower women, reduce inequalities, and give women access to leadership and decision making processes. Development of engineers who understand their role in empowering women through the use of engineering and technology, and how this relates to the SDGs. Mainstreaming of the gender perspective in climate change mitigation and adaptation responses. Women in leadership roles, conference speakers, and as visible role models to the next generation of young people. More enlightened engineers and WFEO colleagues on the role of gender in engineering and their own subject areas. Ultimately more gender diversity in the engineering sector globally.

Action 4.1 Understanding Goal 5 and map the Targets of Goal 5 to engineering and engineers



Goal 5 Targets	Example Engineering Response
5.1 End all forms of discrimination against all women and girls everywhere	<p>How do we ensure that women and girls are not discriminated against in their choices to study engineering, or in relation to their career pathways?</p> <p>How do we ensure that technology is not gender biased, and does not exacerbate inequality or discrimination?</p>
5.2 and 5.3 Eliminate all forms of violence, harmful practice, and exploitation of women and girls	How can technology be used to help women and girls escape violence and exploitation, for example through online support services, access to digital information, apps or equipment linked to personal safety.
5.4 Recognize and value unpaid care and domestic work	Support, promote and encourage the labour reintegration and hiring of women after the maternity stage or their return to work, complying with the nation's current labour regulations.
5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making	Raise the profile of women engineers, ensure equal opportunities, remove bias and discrimination in the engineering sector, provide examples of inclusive leadership practice, etc.

Action 4.3 The WFEO Climate Change Declaration



No climate justice without gender justice

1. Women are more **vulnerable** to the impact of climate change. They depend on resources that are threatened and they have unequal access to other resources. Their ability to cope with threats is limited due to inequality. They have limited voice in decision making.
2. Women are **effective actors** when it comes to mitigation and adaption to climate change, and have a strong body of knowledge to draw upon, and are able to influence behaviour at community level.
3. There is a need for the development of **Technology and Innovation for Gender Equality**.
4. They have a role to play in **creating technological solutions**, but currently are not well represented in the engineering & technology sectors.



*'No climate justice without
gender justice'*

The impacts of climate change are experienced by every person around the world, but the consequences are not experienced evenly, and women are often disproportionately affected. Women are more vulnerable to climate change based on inequalities in socially constructed gender roles and their social, economic, political, and cultural status. These differences also impact their ability to adapt to climate change – with men and boys also facing different forms of disadvantage.

For example, women are unevenly represented in positions of power, they are less likely to have access to finance and knowledge, to own property and land, and they often have traditional caring roles which prevent them moving to find work. Climate change impacts all aspects of life, including livelihoods, water resources, energy supply, food security, health and nutrition. The lack of control that women have over these vital areas, and lack of access to capital, makes it harder for women to influence how resources are used in response to climate shocks, and ultimately, for women to access the livelihood opportunities necessary for their survival.

Men and boys are affected by climate change as much as women and girls are – but often in different ways, and the effects depend largely on local contexts. In some cases, males may be more vulnerable to harm from events related to climate change, as evidenced by higher rates of suicide among men, as well as higher fatalities from flooding. While some evidence suggests that men tend to have particular advantages in coping with climate shocks, much of the adaptation literature suggests that women and men are both able to adapt, but do so in different ways; men tend to migrate, while women often use home gardens/small-scale agriculture or forest product collection to survive.

So What Can We Do in Engineering?

1. Empower women in climate leadership roles
2. Mainstream gender and include it in the project's objectives
3. Conduct gender analysis and social assessment during project design
4. Consult with women as project stakeholders
5. Set gender related targets
6. Collecting disaggregated data
7. Create a budget for gender-related activities

Gender mainstreaming involves the integration of a gender perspective into the preparation, design, implementation, monitoring, financing, and evaluation of technical solutions, policies, regulatory measures, and spending programmes, with a view to promoting equality between women and men, and combating discrimination.

This project has been developed by the Women in Engineering Committee of the World Federation of Engineering Organizations (WFEO).

SUSTAINABLE DEVELOPMENT GOALS

#Engineering4All

4.4 Compilation of Member Biographies including relevant SDGs



Compilation of member biographies, e.g. Eunice Seyaker

Eunice Sua Seyaker is a dedicated and technically skilled Electrical Engineer with a strong foundation in project management, leadership, and technical communication. She earned her Bachelor of Science degree in Electrical Engineering from William V. S. Tubman University in 2019, and has since pursued professional development through various certifications, including "Supervisory Management Leadership," "Foundations of Project Management," and "Solar Energy Basics."

Eunice currently serves as an Engineer in Training III at the Liberia Electricity Corporation, where she manages electrical grids in Maryland and River Gee counties, contributing directly to several of the United Nations' Sustainable Development Goals (SDGs). Her work aligns particularly with:

Eunice's technical expertise extends to roles at Landstar Engineering and Transport Services, American Procurement Services LLC, and CEMENCO-Liberia, where she sharpened her skills in grid construction, electrical distribution systems, and maintenance of industrial electrical systems.

Outside of her professional endeavors, Eunice actively contributes to various engineering societies, holding leadership positions such as Interim President of the Society of Electrical, Electronic, IT and Telecommunication Engineers (SEEITE), Treasurer of the Society of Women Engineers (SWE) - Liberia Montserrado County, and Publicity Chair of the Society of Women Engineers of Liberia. She is also a full member of the Engineering Society of Liberia and has engaged in STEM motivational speaking.

Eunice's strengths lie in her problem-solving abilities, effective communication, and adaptability to diverse environments. She is proficient in Microsoft Office applications, AutoCAD, technical writing, and critical thinking. Eunice is recognized for her leadership, technical prowess, and commitment to advancing engineering in Liberia while actively contributing to sustainable development goals and advocating for gender equality in engineering.



4.4 Understand the work of our own WIE members in relation to the SDGs they work on.



• Through Knowledge Sharing Webinars

- **Friday 21 June 2024** in celebration of the tenth anniversary of International Women in Engineering Day **#INWED24**
- Theme: **The Lives of Women: Enhanced by Engineering**
- Engineering and technology have an enormous role to play in enhancing our lives. Engineers literally build the world around us, and as engineers, we have a huge influence on the lives of people, and the planet. From the products and services we produce, to the resources and materials we mine and manufacture in order to create these engineered solutions.
- Hear from panel members how their work in engineering is enhancing the lives of women



INTERNATIONAL WOMEN
In ENGINEERING DAY

23 June 2024

4.5 Bring the gender perspective into the work of all of the WFEO committees, to mainstream gender perspective work



A great example from a recent Water Report:

- “Moving forward, engineering studies must include social analysis of key issues, among them importantly an analysis of the impacts that proposed solutions may have on gender equity, i.e. they **should incorporate a gender-lens** into the social analysis in the discipline of engineering. It is also important to ensure equal access to such education for women.”
- “Mechanisms should be in place to **ensure the voice and agency of women to contribute to and be consulted in such community dialogues**. Engineers will only be able to contribute meaningfully to the achievement of SDG 6 if they employ a human rights-based approach.”



4.6 In collaboration with other WIE themes, organisation of the annual Virtual Art Competition for the engagement of young girls in Africa to combine engineering and art



Planning the 2024 Version of the Competition and looking for sponsors

World Federation of Engineering Organizations



Working in Partnership to achieve the SDGs

CONCEPT NOTE

4th African STEAM Virtual Art Competition- African Continent

The World Federation of Engineering Organizations-Women in Engineering (WFEO-WIE) Committee is delighted to conduct the 4th Virtual ART competition to celebrate International Women in Engineering Day (INWED) 2024.

In keeping with this year's INWED theme, "Enhanced by Engineering," the WFEO-WIE, whose aim is to promote equity, diversity, and inclusivity in the engineering workforce, has recognized the importance of developing creativity, critical thinking skills, and problem-solving abilities in early learners.

The objective of the "STEAM VIRTUAL ART COMPETITION" is to create STEAM (Science, Technology, Engineering, Art and Mathematics) building blocks in early learners, principally female children across the African continent, using FINE ART. By allowing children to explore their expressive side through the arts, they are able to expand their creative thinking and innovative skills, which are necessary to solve complex engineering, science, and math problems.

A second objective is the formation of the African C-Change Makers to be chosen /shortlisted from winners in participating countries. They will be invited for a WIE mentorship scheme- a sustainable capacity initiative.

