“Challenging Inequalities”

11th International Forum of NGOs in official partnership with UNESCO

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Inequality is the Problem

1. Levels of inequality are exceptionally high
2. High inequality causes economic and social harm
3. Social policies can combat inequality
4. We need NGOs and research to identify effective policies, programs, and practices

Policy Can Address Inequality
Committee on Women in Engineering (WIE)
Committee on Information and Communication (CIC)
Committee on Engineering for Innovative Technologies (CEIT)

The Committee for Women in Engineering (WIE) has given women engineers across different continents an opportunity for knowledge sharing across all disciplines of engineering thereby positioning the women engineer for better professional delivery.

The main duty of the Committee on Information and Communication (CIC) is to help lead forward Information and Communication Technology in order for it to be applied globally, and focuses on developing countries where narrowing the gap has become essential.

The Committee on Engineering for Innovative Technologies (CEIT) has set its objectives in the area of technological advancements to identify and promote suitable technologies for sustainable development, especially in the context of the UN Sustainable Development Goals.
To have women and men engineers, in equal opportunity, work to constructively resolve international and national issues, using the strength of their diversity and their differences for the benefit of humanity.
INWES is a global network of organizations of women in Science, Technology, Engineering and Mathematics (STEM), reaching over 60 countries worldwide. INWES is a not-for-profit corporation governed by a board of directors consisting of directors representing organizations including networks and universities/institutes, and individual memberships.
Korean Institute for Gender Equality Promotion and Education Trainings
Provides various training programs to public officials such as
- Gender sensitivity promotion education
- Gender equality policy education
- Sexual harassment complainants counseling education
- Sexual harassment
- Sexual violence prevention education.
These training programs have their legal basis in the Framework
- Act on Women’s Development
- Act on National Human Rights Commission
- Act on Sexual Violence
- Act on Domestic Violence
- Act on Sexual Harassment
- Act on Child Welfare
- Act on the Prevention of the Sex Trade.
These training programs are provided upon voluntary request, with the exception of government officials directly responsible for related tasks and obligated to perform them.
WOMEN’S PARTICIPATION IN STEM: THE CURRENT SITUATION IN MALAYSIA

- **Malaysian Government**: STEM to transform the country into a developed nation by 2020, ensure sufficient STEM-related human capital, resources, and infrastructure. The government recognizes the need to capitalize on female participation to promote its economic and national development (Mohamed, 2011).

- Since the early 1970s, the country has increased the percentage of women in the workforce; one result is an increase of 95%, across all fields, from 2,374,300 in 1990 to 4,689,700 in 2012 (MoHR, 2012).

- **Education**: in 2015, women constituted more than 50% of students across all STEM-related courses, except engineering, in third-level education.

- **Malaysian girls** are performing well in STEM from primary schools up to university. As of 2015, the enrolment rate was 84.6% for preschool children, 98% for primary school, 92.5% for lower secondary, and 85% for upper secondary. Half of these children are girls (MoE, 2016).

<table>
<thead>
<tr>
<th>Year</th>
<th>Fellowship</th>
<th>Corporate Member</th>
<th>Graduate</th>
<th>Affiliate</th>
<th>Incorporated Member</th>
<th>Associate Member</th>
<th>Companion</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>12</td>
<td>669</td>
<td>2357</td>
<td>3</td>
<td>12</td>
<td>1</td>
<td>57</td>
<td>11031</td>
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<tr>
<td>2017</td>
<td>12</td>
<td>728</td>
<td>1925</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>50</td>
<td>8438</td>
</tr>
<tr>
<td>2016</td>
<td>12</td>
<td>668</td>
<td>1880</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>42</td>
<td>7932</td>
</tr>
<tr>
<td>2015</td>
<td>12</td>
<td>594</td>
<td>2272</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6677</td>
</tr>
<tr>
<td>2014</td>
<td>12</td>
<td>589</td>
<td>2202</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2582</td>
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<tr>
<td>2013</td>
<td>11</td>
<td>538</td>
<td>1611</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2973</td>
</tr>
</tbody>
</table>

Total Women Engineers Members: 14,342

Source: The Institution of Engineers, Malaysia

Student enrolment in STEM streams (Form 5) have experienced an average drop of about 6,000 STEM students per year *. 

* **Note**: The enrollments in the STEM-related courses show a decline over the years, indicating a need for strategies to enhance female participation.
### Number of Registered Female STEM Professionals

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</thead>
<tbody>
<tr>
<td><strong>Dentists</strong></td>
<td>3,670</td>
<td>4,010</td>
<td>16,976</td>
<td>17,468</td>
<td>17,690</td>
<td>20,512</td>
<td>1,036</td>
<td>1,114</td>
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<tr>
<td><strong>Medical Doctors</strong></td>
<td></td>
<td></td>
<td>51.2%</td>
<td>48.5%</td>
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<tr>
<td><strong>Graduate Engineers</strong></td>
<td></td>
<td></td>
<td>22.7%</td>
<td>24.0%</td>
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<tr>
<td><strong>Quantity Surveyors</strong></td>
<td></td>
<td></td>
<td>43.3%</td>
<td>44.4%</td>
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<th></th>
<th>2015</th>
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<th>2015</th>
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<th>2015</th>
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<th>2015</th>
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</thead>
<tbody>
<tr>
<td><strong>Science, Mathematics &amp; Computer Science</strong></td>
<td>50,761</td>
<td>50.54%</td>
<td>60,956</td>
<td>38.72%</td>
<td></td>
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<tr>
<td><strong>Engineering, Manufacturing &amp; Construction</strong></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Agriculture &amp; Veterinary</strong></td>
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<tr>
<td><strong>Health &amp; Welfare</strong></td>
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</table>

Higher-education students enrolled in STEM-related disciplines

Source: MoHE, 2015
Law/policy to support women in STEM

**Girls’ schools**
Government established residential science schools to provide quality STEM education.
The first residential school, Malay College Kuala Kangsar (MCKK), was established in 1905.
69 fully residential science schools across the country; 6 for boys, 6 for girls, and 57 co-ed.
First residential MARA Junior Science College (MJSC) was built in 1972 by the People’s Trust Council;
Now there are 51 MJSCs across the country. Over the years, residential science schools and MJSCs have succeeded in producing many outstanding STEM professionals.

**Empowering female role models to inspire girls as students**
Female role models are a clear motivator, as they encourage more girls to enter STEM.

**National women’s policy.**
- Malaysia Woman Policy (MWP), established nearly 30 years ago and revised in 2009.
- It aims to develop women’s human capital and to empower women to be competent, resilient, knowledgeable, visionary, creative, and innovative while demonstrating moral values.

**STEM Laws**
Malaysia has enacted many STEM-related laws. The most prominent are the Academy of Sciences Malaysia Act of 1994, the Chemists Act of 1975, and the Engineers Act of 1967, revised in 2007. Each act is implemented through an institution or professional body, such as the Academy of Sciences or Institute of Chemistry Malaysia, or the relevant ministry.
Gender Equality Perspective in Government Development & Policy
Perception of women engineers on several issues related to their jobs and working environment

Survey

- Opinion are not accepted because of female
  - Yes: 25.3%
  - No: 74.7%
  - N/A: 0.0%

- Experienced sexual harassment
  - Yes: 13.6%
  - No: 86.4%
  - N/A: 0.0%

- Experienced sexual discrimination
  - Yes: 21.7%
  - No: 78.3%
  - N/A: 0.0%

- Superior deprive you of attending any meetings
  - Yes: 19.5%
  - No: 80.5%
  - N/A: 0.0%

- Consider as independent individual
  - Yes: 94.0%
  - No: 6.0%
  - N/A: 0.0%

- Positive feedback from superiors
  - Yes: 82.1%
  - No: 15.5%
  - N/A: 2.4%

- Difficulty for people to accept opinion
  - Yes: 41.3%
  - No: 58.8%
  - N/A: 0.0%

- Have you ever supervised from 8 pm to 8 am
  - Yes: 24.4%
  - No: 41.5%
  - N/A: 34.1%

- Carried out long standing supervision
  - Yes: 31.3%
  - No: 68.8%
  - N/A: 0.0%

- Opportunity to handle high profile project
  - Yes: 55.4%
  - No: 20.5%
  - N/A: 24.1%

- Confidence to make decisions or instructions
  - Yes: 90.5%
  - No: 9.5%
  - N/A: 0.0%
Survey results on Female scientists are limited in how much they can succeed in science compared to male scientists

Source: APNN-INWES Survey
## SOUTHEAST ASIAN GENDER INEQUALITY IN WORK AND SOCIETY

<table>
<thead>
<tr>
<th>Country</th>
<th>Female population 2016 (million)</th>
<th>Gender equality in work</th>
<th>Essential service and enablers of economic opportunity</th>
<th>Legal protection and political voice</th>
<th>Physical security and autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>125.6</td>
<td>0.52</td>
<td>0.88</td>
<td>0.37</td>
<td>0.82</td>
</tr>
<tr>
<td>Philippines</td>
<td>50.0</td>
<td>0.73</td>
<td>0.91</td>
<td>0.51</td>
<td>0.90</td>
</tr>
<tr>
<td>Vietnam</td>
<td>46.8</td>
<td>0.55</td>
<td>0.95</td>
<td>0.32</td>
<td>0.80</td>
</tr>
<tr>
<td>Thailand</td>
<td>34.3</td>
<td>0.66</td>
<td>0.92</td>
<td>0.18</td>
<td>0.74</td>
</tr>
<tr>
<td>Myanmar</td>
<td>27.6</td>
<td>0.57</td>
<td>0.80</td>
<td>0.22</td>
<td>0.77</td>
</tr>
<tr>
<td>Malaysia</td>
<td>15.5</td>
<td>0.51</td>
<td>0.88</td>
<td>0.19</td>
<td>0.89</td>
</tr>
<tr>
<td>Cambodia</td>
<td>7.9</td>
<td>0.52</td>
<td>0.86</td>
<td>0.32</td>
<td>0.86</td>
</tr>
<tr>
<td>Singapore</td>
<td>2.8</td>
<td>0.68</td>
<td>0.94</td>
<td>0.36</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Source: The cost of gender inequality | The ASEAN Post (9 September 2018)
Malaysia aims at closing the gender gap in STEM education and professions: a transformative process, with positive implications for the country’s development.
If all these programs work, why the growth in inequality?

- Effective responses have emerged, but they are modest compared to the scope of the problem.

- Programs take time to have effects
  - School reforms take 3-5 years to work
  - Early child care effects emerge a decade later

- Need for multiple efforts across multiple spheres
  - Family, health, neighborhood, school, workforce

- Programs, policies, practice work differently in different contexts and for different individuals.
Summary

Inequality is the Problem: What’s Our Response?
Tax and benefit changes have been important
Increasing inequality and stemming further rises

Structural changes are almost certainly the key
How much control does the Government have other these?
More than you think, but less than they want
e.g. education policy, encouraging single parents into work

NGOs play very important roles.
Are inequality unachievable? Or desirable?

Policy Can Address Inequality