

# The Role of **WOMEN ENGINEERS** in Myanmar's Private Construction Sector

Presented by  
**Aye Thandar Kyaw**  
22nd Aug 2026



# Agenda

## Section 1

- Introduction
- Construction Industry Overview
- Status of Women Engineers
- Education & Career Pathways
- Challenges and Opportunities
- Future Trends

Speaker : **Aye Thandar Kyaw**

## Section 2: Panel Discussion

- Discussion
- Conclusion
- Questions and Answers

Moderator : Daw Aye Thandar Kyaw

Panelists: 1) Daw Win Mon Mon Lwin

2) Daw Nwe Nwe Tun

3) Daw Thet Hnin Soe



# Introduction

## Personal Profile

# AYE THANDAR KYAW

Ph, Viber, WeChat, WhatsApp : 09752144440

Email: athandarkyaw@mindhama.com, atkyaw2007@gmail.com

### Qualifications:

B.E (Civil, 1996) Yangon Institute of Technology

M.E (Construction Engineering & Management, 1999)

Asian Institute of Technology, Thailand

PE (Construction, 0119)

ACPE (ASEAN Chartered Professional Engineer)



# Professional Journey

## (Through 28 Years Experience)

Executive Director/ Business Development, Min Dhama Co., Ltd. (Dec 2013 up to now)

Planning & Quotation Section Head, (Aug 2000 to Nov 2013)

Technical Consultant, UNDP/UNCHS, Community Water Supply and Sanitation Project (March 2000 to July 2000)

Office Engineer, Drill Con(Asia) Co., Ltd., Thailand (July' 1999 to Feb' 2000)

Office Engineer, Myanmar Hong Leong Co., Ltd., Maung Weik & Family Co., Ltd.( Apl 1997 to Aug 1997)

Assistant Design Engineer, Olympic Construction Co., Ltd. (June 1996 to March 1997)

### Others

Visiting Lecturer: Diploma/Master Construction Management Program, Department of Civil

Engineering Yangon Technological University (June 2013 to Dec 2017)

Visiting Tutor: Construction Project Management Program, ALP (Heriot-Watt University) Strategy

First University (Sept 2020- Apl 2021)

Lecturer- Applied Construction Management Program, Strategy First Collage (Dec 2022- Present)

# Purposes



To showcase the achievements and experiences of women engineers.



To encourage greater participation of women in the construction sector.



To raise awareness of the benefits of an inclusive and diverse workforce.



# Objectives

- Understand Gender Gap

Analyze men and women engineers' ratio globally and in Myanmar's private construction sector to reveal the gender gap.

- Evaluate Skills and Roles

Objectively assess women engineers' capabilities, focusing on skills, education, technology, and performance.

- Highlight Diverse Roles

Showcase women engineers' involvement especially in planning, controlling, technical and knowledge-based area.

- Address Challenges and Inspire

Discuss workplace bias and work-life balance challenges, while motivating inclusive policies and young women's careers.

## Expected Outcomes

- Increased understanding of the roles and contributions of women engineers.
- Greater appreciation of gender diversity in the construction industry.
- Strengthen the role of women engineers in modern construction by expanding opportunities in in skill & knowledge-based work rather than gender.
- Enhanced support for women's career development and leadership opportunities in private construction sector.

## Scope and Limitations

- Sector: Private /Construction
- Gender: Women
- Field: Engineers
- Time: data collected period
- Data Availability : Limited access to company records, gender-related employment data, and organizational policies
- Sample Size : Number of samples is relatively small



# Construction Industry Overview



## Private Construction Sector Overview

**"What types of businesses are included in the private-sector construction industry?"**

- Construction Company
- Developer
- Architect Firm
- Design & Consultant
- Specialized Contractor
- Equipment and Machine Rental
- Products/ Material Supplier

# Roles of Engineers in Construction Projects

## ➤ Comprehensive Engineering Roles

Engineers manage all phases of construction including feasibility, design, analysis, and quality control to ensure project success.

## ➤ Collaboration and Coordination

Engineers coordinate with architects, contractors, and clients to meet project goals within time, budget, and regulations.

## ➤ Skills and Ethical Responsibility

Technical knowledge, analytical thinking, communication, and ethics are essential for engineers in construction projects.

## ➤ Inclusivity in Engineering

Women engineers are equally capable in all roles, highlighting diversity and opportunities in construction engineering.

# Soft Skills and Professional Strengths



## ➤ Importance of Soft Skills

Soft skills like communication and teamwork are essential for engineers' success beyond technical expertise.

## ➤ Women Engineers' Strengths

Women engineers excel in communication and coordination, key for managing teams and stakeholder interaction.

## ➤ Impact on Project Efficiency

Effective communication reduces errors and misunderstandings, improving project efficiency and safety.

## ➤ Balanced Skill Set Value

Combining technical and soft skills strengthens project outcomes, worksite safety, and professional relationships.



# Status of Women Engineers

# Are you a Feminist?

## What is “Feminist”?

A **feminist** is a person who believes in and supports **equal rights and opportunities** for women and men.

A feminist believes that **women and men** should be treated **equally** in:

- Education
- Jobs
- Salary
- Leadership
- Rights





# GLOBAL WOMEN IN ENGINEERING STATISTICS (2026)

Only 8% of Fortune 500 companies have women as chief engineering officers, while women leave engineering jobs at 30% higher rates than men by mid-career. The gap starts earlier and widens over time, with women earning 22.3% of engineering bachelor's degrees in the U.S. but holding just 11% of engineering jobs. This article tracks where women are lost across education, hiring, pay, and promotion.

WORLD METRICS REPORT 2026  
Diversity Equity And Inclusion In Industry

## Gender Representation: Global vs Myanmar

| Population              | Male  | Female |
|-------------------------|-------|--------|
| World (2026 estimate)   | 50.3% | 49.7%  |
| Myanmar (2026 estimate) | 49.7% | 50.3%  |

| Construction            | Male   | Female |
|-------------------------|--------|--------|
| World (2026 estimate)   | 86-90% | 10-14% |
| Myanmar (2026 estimate) | ~ 80%  | ~20%   |

| Engineering Workforce   | Male   | Female |
|-------------------------|--------|--------|
| World (2026 estimate)   | 84-88% | 12-16% |
| Myanmar (2026 estimate) | ~ 54%  | ~46%   |

Cited by Recent Swiss contact Myanmar report



# Women in Construction

“The Bureau of Labor Statistics Current Population Survey for 2025 reports that women now make up **14.3% of the construction workforce** — a record high. Five years ago, that number was 11.2%.”

BLS CPS data breaks down that 14.3% figure by occupation,

Office and administrative roles: 44.2% women — this has been relatively stable for a decade

Management and professional roles: 18.7% women — up from 15.1% in 2020

Construction trades (craft workers): 4.2% women — up from 3.4% in 2020, but still painfully low

Equipment operators: 3.8% women  
Laborers: 5.1% women

# Global Workforce Trends

<https://buildermuse.com/labor-wages/women-in-construction>

# Women Engineers in Myanmar

“2018 statistic indicating that women represented 46% of engineering professionals in both the government and private science sectors.”

## Office-Based Roles

Many women engineers work in design, planning, and administrative positions rather than site management roles.

## Cultural and Social Influences

Cultural expectations and family responsibilities influence women's participation in field engineering roles in Myanmar.

## Growing Opportunities and Support

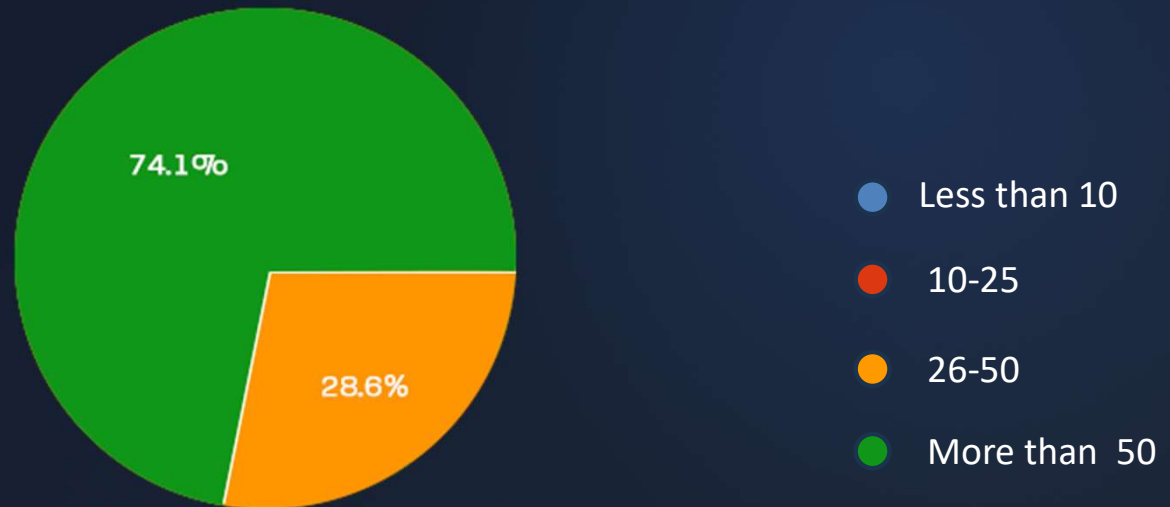
Government and educational initiatives are helping increase women's participation and success in engineering careers.



## Women Engineers Workforce in Myanmar Private Construction Companies

What percentage of women engineering workforce in your organization?

7 responses



Based on top 7 private construction company survey data

# Women Engineer in Leadership Positions

Are there any women engineers holding senior management or top management positions in your organization?

7 responses



- Yes
- No



# Education and Career Pathway



# Women Engineer Students (1991-1996)

Female graduates represented about 20% of all engineering graduates in 1996."

## 11 Majors Offered

Electronic Engineering

Civil Engineering : 20 %

Mechanical Engineering

Electrical Engineering

Chemical Engineering

Textile Engineering

Mining Engineering : No Female

Petroleum Engineering: No Female

Metallurgical Engineering

Aeronautical Engineering: No Female

Architecture (B.Arch.)

ရန်ကုန်တက္ကသိုလ်  
စာမေးပွဲအောင်စာရင်းကြေညာချက်  
၁၉၉၆ခုနှစ်၊ ဩဂုတ်လ ( ၁၁ ) ရက်

အောက်ဖော်ပြပါ ကျောင်းသားကျောင်းသူများသည် ရန်ကုန်တက္ကသိုလ်မှ ( ၁၉၉၅ - ၉၆ )  
ပညာသင်နှစ်အတွက် ၁၉၉၆ ခုနှစ်၊ ဇွန်လအတွင်းက ကျင်းပခဲ့သော ဆဋ္ဌမနှစ် အင်ဂျင်နီယာနှင့် ဗိသုကာ  
( Final Year B.E & B. Arch. ) စာမေးပွဲများကို ဖြေဆိုအောင်မြင်ကြောင်း ကြေညာ လိုက်သည်။

| ဆဋ္ဌမနှစ်<br>အင်ဂျင်နီယာဘွဲ့ (မြို့ပြ) |                      | အမှတ်အများအနည်းအလိုက်   |                 |       |
|----------------------------------------|----------------------|-------------------------|-----------------|-------|
| နံအမှတ်                                | အမည်                 | ဂုဏ်ထူးရဘာသာရပ်         | မှတ်ချက်        | အဆင့် |
| ၂                                      | မပပဝင်း              | (၁) (၂) (၃) (၄) (၅) (၆) | အဆင့်မြင့်အောင် | 1     |
| ၃                                      | မအေးသန္တာကျော်       | (၂) (၃) (၄) (၅) (၆)     | အဆင့်မြင့်အောင် | 2     |
| ၁                                      | စိုးသကြာနီ           | (၁) (၂) (၄) (၅) (၆)     | အဆင့်မြင့်အောင် | 3     |
| ၄                                      | မနှင်းနွဲ့ဝင်း       | (၂) (၃) (၄) (၅) (၆)     | အဆင့်မြင့်အောင် | 4     |
| ၆                                      | မဥမ္မာလွင်           | (၁) (၃) (၄) (၆)         | အဆင့်မြင့်အောင် | 5     |
| ၇                                      | မိသန္တာမွန်          | (၁) (၃) (၄) (၆)         | အဆင့်မြင့်အောင် | 6     |
| ၁၃                                     | မောင်ကျော်ကျော်အောင် | (၁) (၂) (၄) (၆)         | အဆင့်မြင့်အောင် | 7     |
| ၂၄                                     | မောင်ဝင်းကျော်အောင်  | (၁) (၂) (၅) (၆)         | အဆင့်မြင့်အောင် | 8     |
| ၈                                      | မခင်သီတာမင်း         | (၁) (၃) (၄) (၅)         | အဆင့်မြင့်အောင် | 9     |
| ၁၂                                     | မသက်ရည်ဝင်း          | (၃) (၄) (၆)             | အဆင့်မြင့်အောင် | 10    |
| ၁၅                                     | မခင်သက်လွင်          | (၁) (၃) (၄) (၆)         | အဆင့်မြင့်အောင် | 10    |
| ၂၀                                     | မောင်သန်းတိန်းထွန်း  | (၅) (၆)                 | အဆင့်မြင့်အောင် | 12    |
| ၂၆                                     | မလှလှခိုင်           | (၁) (၃) (၅)             | အဆင့်မြင့်အောင် | 12    |
| ၁၁                                     | မောင်သက်လင်း         | (၁) (၃) (၅)             | အဆင့်မြင့်အောင် | 14    |
| ၂၁                                     | မနီနီခိုင်           | (၅) (၆)                 | အဆင့်မြင့်အောင် | 15    |
| ၁၀                                     | မောင်အောင်မင်းစိုး   | (၁) (၂)                 | အဆင့်မြင့်အောင် | 16    |
| ၃၂                                     | မောင်နေလင်းဦး        | (၄)                     | အဆင့်မြင့်အောင် | 17    |
| ၁၇                                     | မဟေဥမ္မာဟန်          | (၂) (၅)                 | အဆင့်မြင့်အောင် | 18    |
| ၁၈                                     | မောင်ဇော်လင်းမြ      | (၁) (၅) (၆)             | အဆင့်မြင့်အောင် | 19    |
| ၂၅                                     | မောင်စိုးတင်         | (၂)                     | အဆင့်မြင့်အောင် | 20    |
| ၁၆                                     | မခင်မျိုးနွယ်        | (၄)                     | အဆင့်မြင့်အောင် | 21    |
| ၃၅                                     | မောင်ကျော်မင်းခိုင်  | (၆)                     | အဆင့်မြင့်အောင် | 22    |
| ၃၀                                     | မအိအောင်             | (၁) (၆)                 | အဆင့်မြင့်အောင် | 22    |



# Academic Performance of Women Engineers

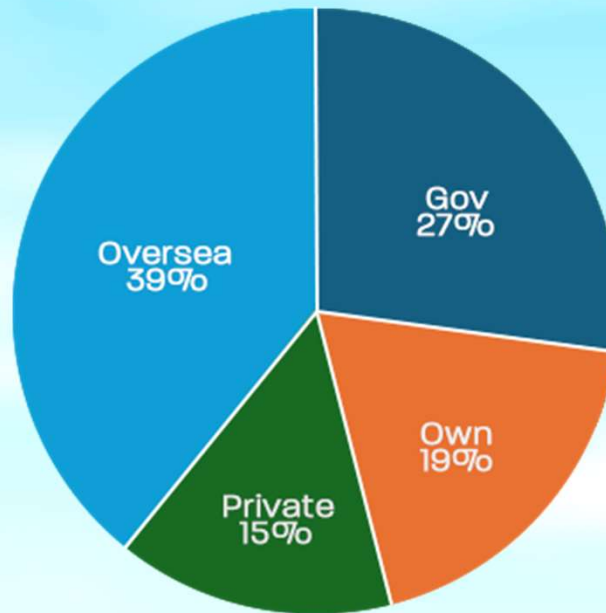
Based on 1996 Civil Final Year Exam Result

- Total Passed : 126
- Female: 26/126 (20%)
- Top 10: Female 8 ( 73%)

# Carrier Outcomes of Women Engineers

Job Area Contribution

From 1996 (Civil) Data



Oversea Private Own Gov

100 % of Private sector we holds on Professional Management Position

Oversea

Private

Own

Gov

## Case Study: Min Dhama Co., Ltd. Women Engineers Contribution

| Education Level    | Permanent Employee | Contract Employee | Grand Total |            |            | % of Education Level |
|--------------------|--------------------|-------------------|-------------|------------|------------|----------------------|
| Engineering Total  | 202                | 47                | Male        | Female     | Total      | 32%                  |
|                    |                    |                   | 157         | 92         | <b>249</b> |                      |
| Graduate           | 103                | 21                | 84          | 40         | <b>124</b> | 16%                  |
| Non-Graduate       | 236                | 165               | 389         | 12         | <b>401</b> | 52%                  |
| <b>Grand Total</b> | <b>541</b>         | <b>233</b>        | <b>630</b>  | <b>144</b> | <b>774</b> | <b>100%</b>          |

Women Engineers: **37%** on total MDC Engineers workforce

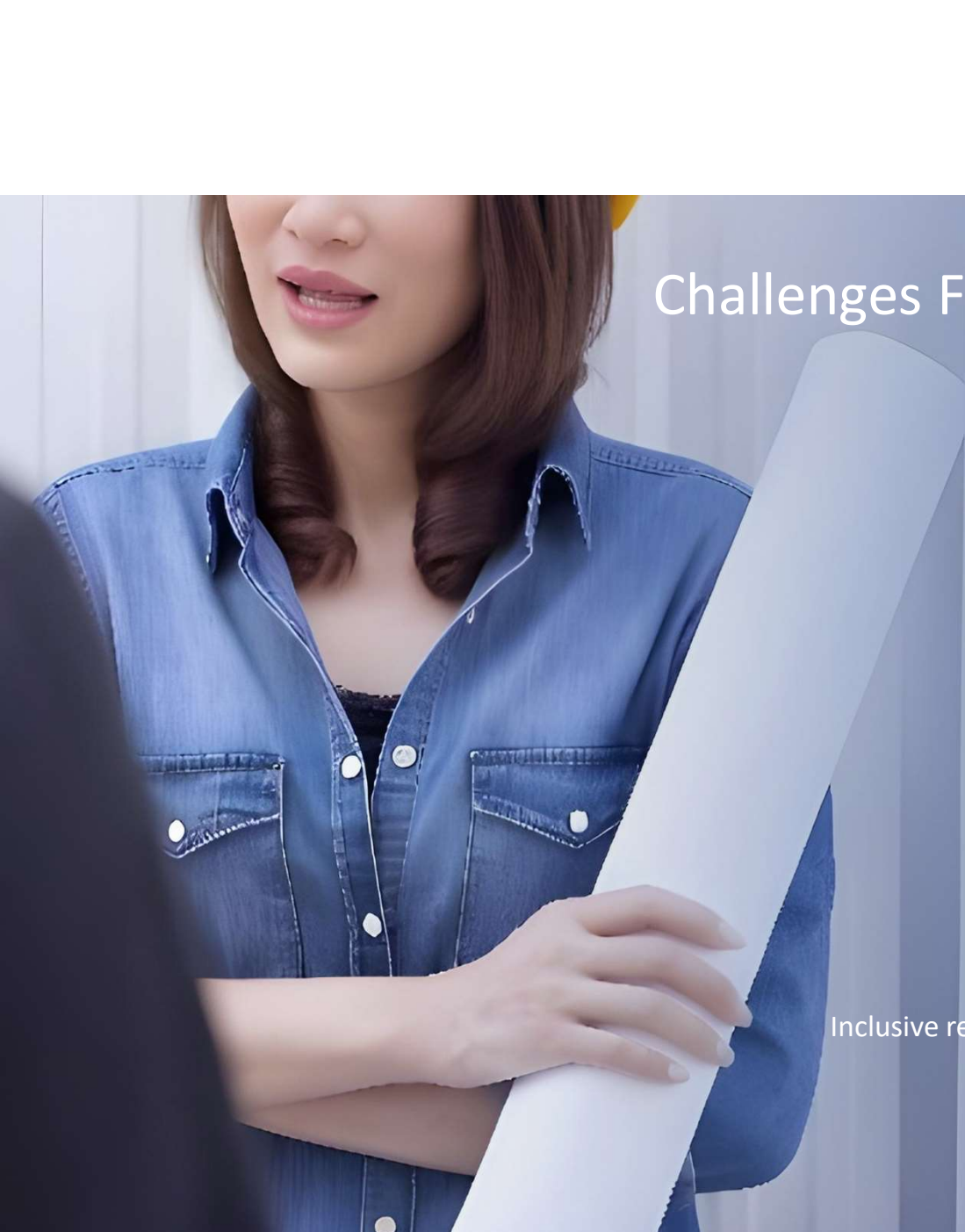
# Women Engineers At MDC



| Section                | Headcount |
|------------------------|-----------|
| Architecture           | 5         |
| Decoration             | 7         |
| Installation           | 4         |
| Maintenance            | 1         |
| Management             | 3         |
| New Energy Development | 3         |
| Production (3)         | 2         |
| Production Management  | 15        |
| Project Control        | 18        |
| Project Implementation | 7         |
| Project Planning       | 1         |
| Purchasing             | 1         |
| QA                     | 2         |
| QC                     | 2         |
| QS                     | 16        |
| Structural Design      | 5         |
| Grand Total            | 92        |

# Challenges and Opportunities





# Challenges Faced by Women Engineer in the Construction Industry

## ➤ **Male-Dominated Industry**

In Construction engineering, women representing only 10–14% globally and less in some developing countries.

## ➤ **Gender Bias and Limited Opportunities**

Women often face stereotypes, trust barriers, and fewer site opportunities.

## ➤ **Challenges for Women**

Barriers include traditional views, lack of role models, limited facilities, safety concerns, and work-life balance issues.

## ➤ **Need for Inclusion**

Inclusive recruitment, supportive environments, and mentorship programs are essential to improve gender balance in construction.

# BREAKING TRADITIONAL PERCEPTIONS AND STEREOTYPES

Construction and engineering have traditionally been viewed as male-dominated professions.

It is often incorrectly associated with physical strength rather than technical knowledge and professional skills.





## Can Women Engineers Do the Same Functions as Men?

### ➤ Equality in Engineering Roles

Engineering roles depend on skills and knowledge, not gender, ensuring women perform equally in technical functions.

### ➤ Focus on Modern Construction Skills

Modern construction relies on planning, coordination, and technology, areas where physical strength is not a requirement.

### ➤ Breaking Stereotypes in Engineering

Open discussion helps dismantle gender stereotypes and promotes equality based on competence and education.

***Women engineers perform equally well when given equal opportunities, resources, and support.***

# Engineering Fields Suitable for Women Engineers

## Diverse Construction Engineering Fields

Women engineers succeed in design, structural analysis, planning, contracts and quantity surveying as well as in project management.



# Women Engineers in Site-Based Roles

## ➤ Role and Responsibilities

Women site engineers oversee construction activities, coordinate contractors, and enforce quality and safety standards on site.

## ➤ Challenging Traditional Norms

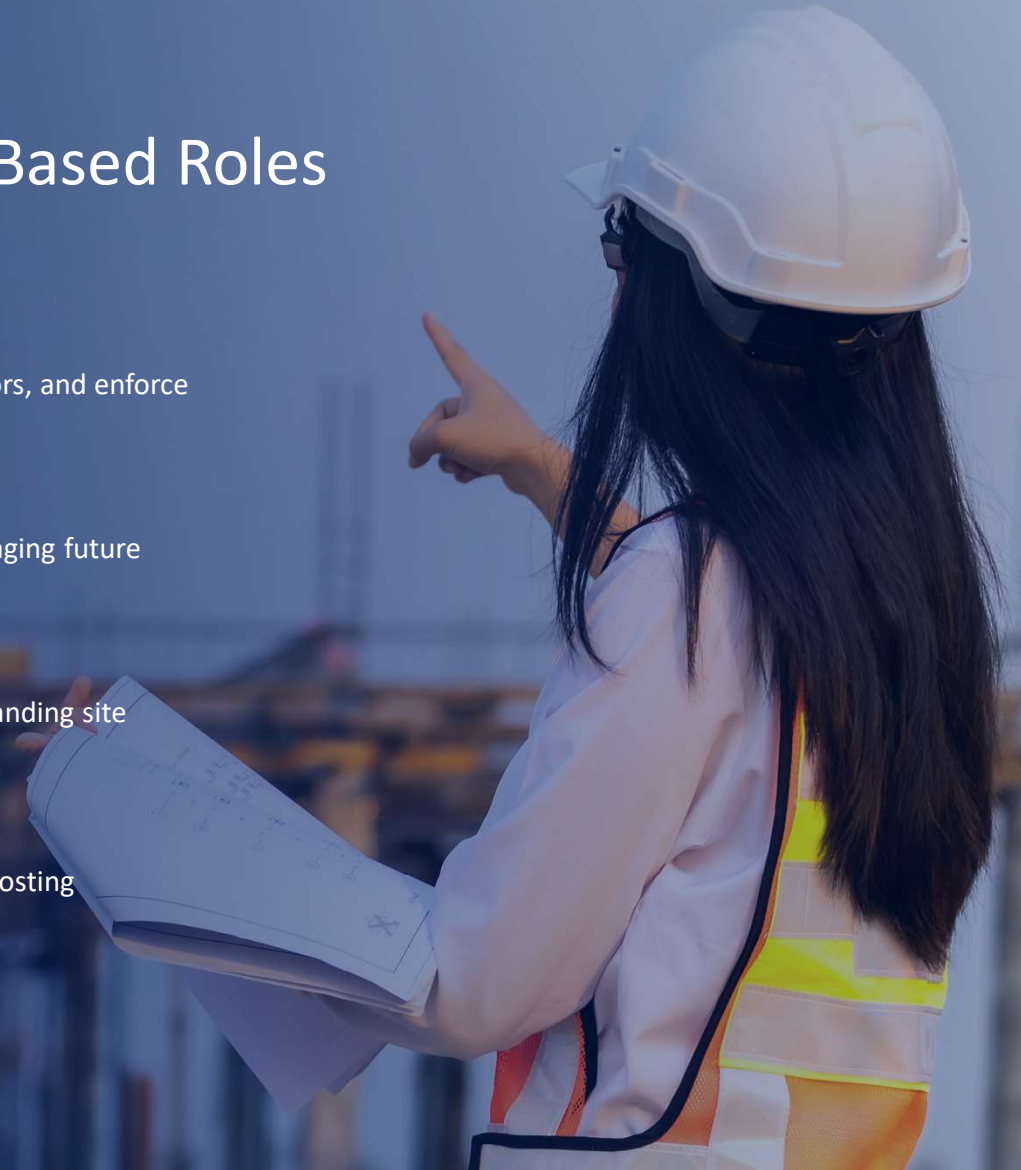
Their presence challenges gender norms and provides role models, encouraging future generations in engineering.

## ➤ Workplace Support and Sustainability

Supportive management and inclusive practices help women manage demanding site conditions sustainably and rewardingly.

## ➤ Skills Enhancing Site Efficiency

Women engineers bring strong organizational and communication skills, boosting teamwork and site efficiency.



## Why should women engineers be considered leadership roles in the construction industry?

### ➤ Strong Technical Expertise

Possess the same engineering knowledge, qualifications, and professional skills as male.

### ➤ Effective Leadership Skills

Demonstrate strong communication, collaboration, and team-building abilities and stake holders' management.

### ➤ Diverse Perspectives Improve Decision-Making

Gender diversity in leadership brings different viewpoints and approaches to problem-solving. Diverse management teams often make more balanced and innovative decisions.

Success in top management depends on leadership, strategic thinking, decision-making, technical knowledge, and people management—not gender.

### ➤ Excellent Communication and Negotiation

Spend significant time on negotiating, resolving conflicts, and maintaining client relationships. Contribute strong interpersonal and communication skills.

### ➤ Focus on Safety, Quality, and Sustainability

Play a key role in promoting a strong organizational culture in these areas.

### ➤ Talent-Based Leadership

Top management positions should be awarded based on competence, experience, performance, and leadership potential.

A woman with long dark hair, seen from behind, is wearing a white hard hat and an orange safety vest with reflective stripes. She is holding the hard hat with her left hand and has her right hand on her head. She is standing on a dirt construction site with a blue sky and some construction equipment in the background.

# Benefits of Gender Diversity in Construction

## ➤ Innovative Problem-Solving

Diverse teams bring varied perspectives, enhancing problem-solving and decision-making in construction projects.

## ➤ Improved Workplace Outcomes

Inclusive workplaces see better collaboration, higher employee satisfaction, and stronger organizational performance.

## ➤ Enhanced Client Communication

Gender diversity improves communication with clients and communities, boosting project quality and sustainability.

## ➤ Role Models for Future Engineers

Women engineers inspire young women to pursue engineering, helping address future skill shortages in construction.

# Expanding Participation Through Education

## ➤ Importance of Education Access

Providing women with quality engineering education is crucial to improving gender balance in construction.

## ➤ Role of Institutions

Universities and organizations support women through scholarships, internships, and mentorship programs.

## ➤ Practical Training Benefits

Hands-on projects and site exposure help women engineers gain confidence and technical skills.

## ➤ Lifelong Learning Importance

Continuous learning enables women engineers to stay updated with evolving construction technologies and regulations.

**1996 Graduation**

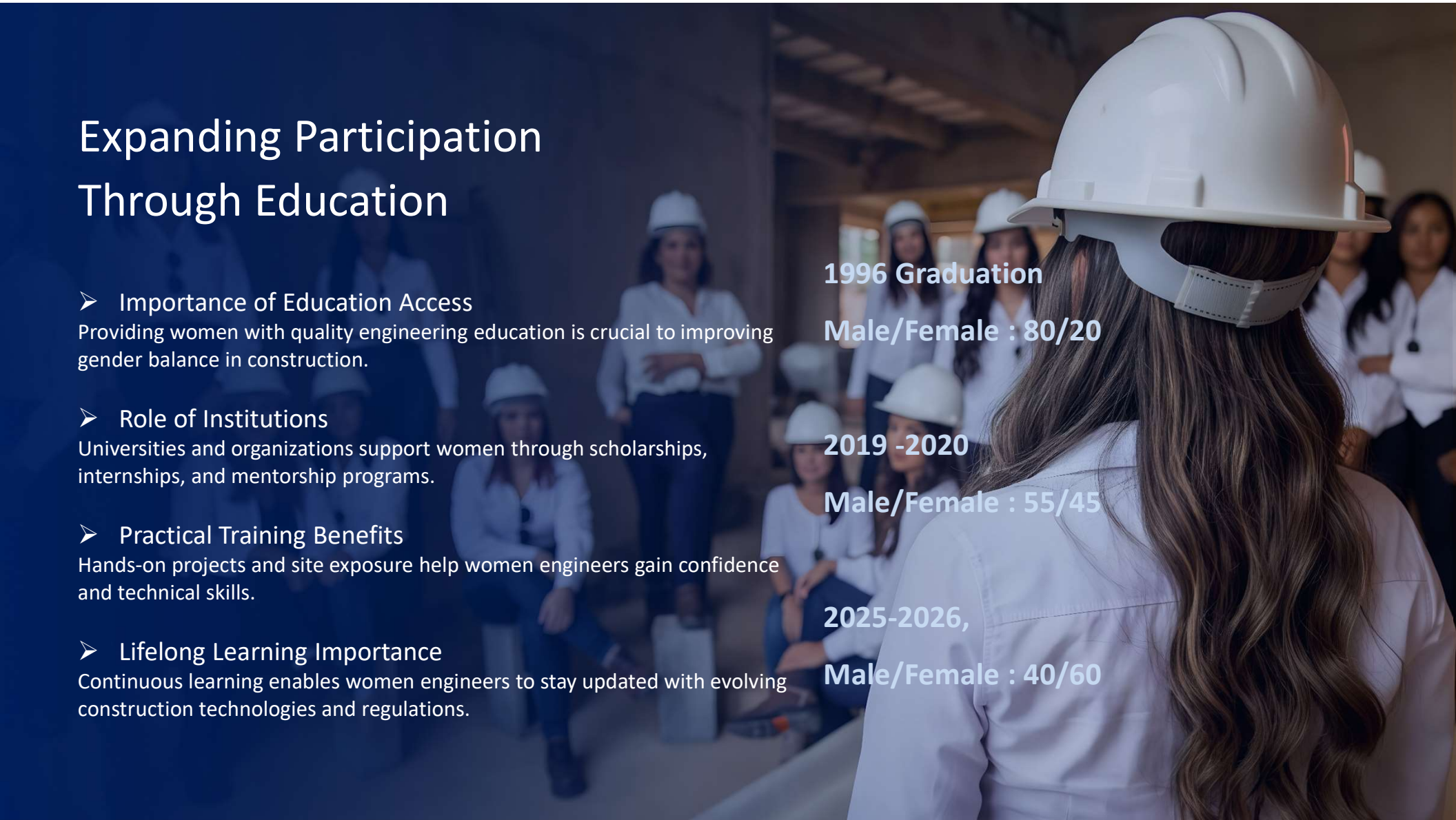
**Male/Female : 80/20**

**2019 -2020**

**Male/Female : 55/45**

**2025-2026,**

**Male/Female : 40/60**



The background image shows an office environment with several women working at their desks. In the foreground, a woman is seen from the side, looking at a laptop. Another woman is pointing at a large monitor displaying a colorful bar chart. In the background, another woman is working at a desk. The office has shelves filled with binders and papers.

# The Role of Organizations and Employers

## ➤ Fair Recruitment and Equal Opportunity

Organizations must implement fair hiring and training practices to promote women's participation in construction engineering roles.

## ➤ Supportive Workplace Culture

Creating inclusive environments with flexible work and mentorship programs helps retain talented women engineers.

## ➤ Leadership Commitment

Strong leadership is crucial for challenging discrimination and driving cultural change within organizations.

## ➤ Benefits of Gender Diversity

Supporting gender diversity improves organizational reputation, project performance, and overall resilience.

# Policy and Professional Support Systems



## Government Policies

Policies promoting equal opportunity and safe workplaces enable gender inclusion in engineering fields.



## Professional Institutions

Engineering councils and associations support women through networking, leadership programs, and recognition.



## Collaborative Efforts

Collaboration between government, industry, and academia drives lasting gender balance improvements.

# Future Trends in Construction

## Digitalization and Automation

Policies promoting equal opportunity and safe workplaces enable gender inclusion in engineering fields.

## Inclusive and Knowledge-Driven Industry

Engineering councils and associations support women through networking, leadership programs, and recognition.



# Discussion

- Promoting Gender Inclusion
- Sharing Perspectives
- Translating Knowledge to Action





## Case Examples of Successful Women Engineers

Modern construction is increasingly creating opportunities for women in knowledge-based engineering and leadership roles, even though overall female representation remains relatively low.

### Challenging Stereotypes

**Sharing success stories helps challenge gender stereotypes and inspires young engineers to pursue engineering careers.**

### Career Pathways and Strategies

**Case examples provide valuable insights on career development and overcoming challenges in male-dominated engineering fields.**

# Discussion Topic 1: Does Competence Matter More Than Gender?

Q1) In your experience, does competence truly outweigh gender in hiring, promotions, and leadership opportunities within the construction industry?

Q2) Despite having equal qualifications and capabilities, do women engineers still face challenges that their male counterparts may not encounter?

Q3) Have Myanmar women engineers achieved equal participation and opportunities with men in the engineering profession?"



A low-angle, upward-looking photograph of four young people, two men and two women, wearing hard hats and safety vests. They are looking up towards the camera with slight smiles. The background is a corrugated metal ceiling. The image is overlaid with a semi-transparent dark blue layer where the text is located.

# Discussion Topic 2: Encouraging More Women into Engineering

Q1) What inspired you to pursue engineering, and how can we inspire more young women in Myanmar to choose this profession?

Q2) Looking back, what support would have made the biggest difference during the early stages of your career?

Q3) What role do female role models and mentors play in motivating the next generation of women engineers?

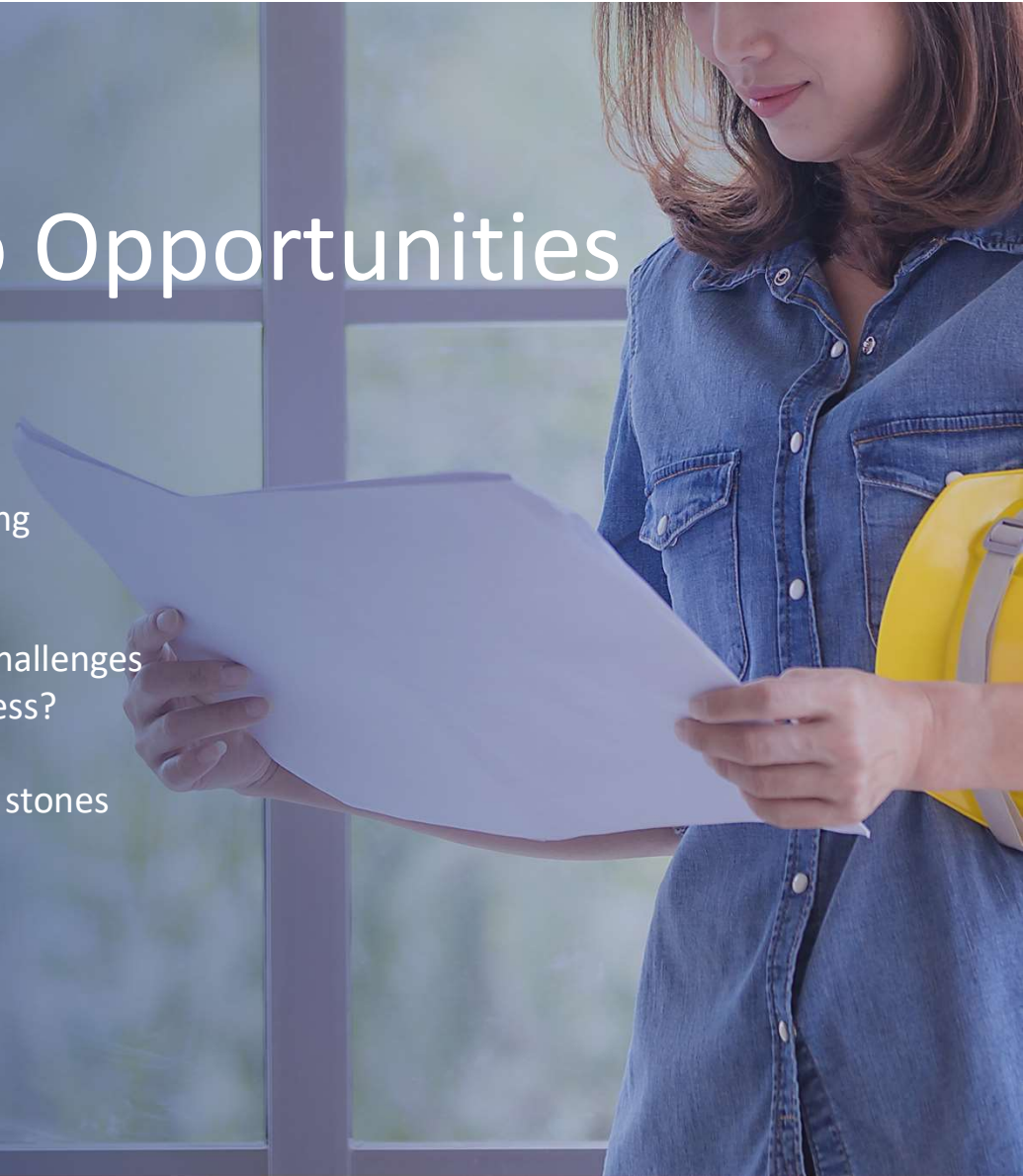
# Discussion Topic 3:

## Turning Challenges into Opportunities

Q1) What has been the biggest challenge in your engineering career, and how did you turn it into an opportunity?

Q2) What practical strategies have helped you overcome challenges in the construction industry and achieve professional success?

Q3) How can women engineers use challenges as stepping stones to develop leadership, resilience, and innovation?



# Conclusion

"THE FUTURE OF ENGINEERING  
BELONGS NOT TO A PARTICULAR  
GENDER, BUT TO THOSE WHO  
ARE CAPABLE, COMMITTED,  
AND READY TO LEAD."



# Men vs Women in Engineering

| Men vs Women in Engineering |                           |                           |
|-----------------------------|---------------------------|---------------------------|
| Aspect                      | Men (အမျိုးသား)           | Women (အမျိုးသမီး)        |
| Participation               | Traditionally higher      | Increasing participation  |
| Physical Work               | Strong in heavy site work | Can adapt with technology |
| Technical Skills            | Equal capability          | Equal capability          |
| Communication               | Direct style              | Often collaborative       |
| Leadership                  | More representation       | Growing leadership roles  |
| Problem Solving             | Analytical                | Analytical + creative     |
| Workplace Challenges        | Fewer gender barriers     | Face gender bias          |
| Opportunity                 | More access historically  | Needs more support        |



# CONCLUSION

**V**alue of Women Engineers

**A**ddressing Challenges

**L**eadership Role

**U**nited & inclusive Industry Future

**E**mpowerment for National Progress



**"As engineers, our profession is built on knowledge, skill, integrity, and commitment. These qualities are not defined by gender. The future of Myanmar's construction industry will be stronger when every capable engineer, whether man or woman, has the opportunity to contribute and lead."**

## CONCLUSION

"THE FUTURE OF ENGINEERING BELONGS NOT TO A PARTICULAR GENDER, BUT TO THOSE WHO ARE CAPABLE, COMMITTED, AND READY TO LEAD."

ANY  
QUESTIONs  
SUGGESSTIONs  
COMMENTs

