International Fem2forests Conference
Equality and Diversity in Forestry: Changing the Image of Forestry

How a Massive Open Online Course ForGEDI can address students' motivations, hesitancies, & obstacles in forest-related sectors

Todora Rogelja (UNIPD), Ida Wallin (SLU), Barbara Öllerer (BOKU), Theresa Klara Loch (IFSA), Rattiya S. Lippe (TIWF), Tara L. Bal (MTU), John Boakye-Danquah (USask), Stephen Wyatt (UdeM)

24.10.2024
Portorož, Slovenia

Content

- About forestry workforce
- Students' motivations and hesitancies
- Gender-based discrimination in forestry
- Call for Action
- ForGEDI MOOC
- Preliminary results
- Conclusions

FOR
G=DI

Gender Equality, Diversity and Inclusion
in forest-related sectors

© Linnea Felton

Current forestry workforce

Globally, forests provide employment, food, income, shelter and ecosystem services to at least 1.5 billion people (ILO, 2019)

Globally: (avg.) 33 million persons annually employed in the forest sector (2017–2019) and decreasing (FAO, 2022)

"Forestry is among the most hazardous sectors for workers, often characterized by decent work deficits including high incidence of informality, occupational safety and health risks, and the lack of social protection"

(ILO, 2019, p.2).

Data from 56 countries (2017–2019): 7.7 million persons informally employed ~ 77% of the workforce (Lippe et al, 2023; Lippe et al, 2022)

FOR GEDI

Gender Equality, Diversity and Inclusion in forest-related sectors

Data courtesy:
Lippe, R., 2024
(based on ForGEDI MOOC Week 1)

Forestry Workforce in Europe

Workers:
- 540 700 - forestry;
- 1 061 300 - wood manufacturing;
- 629 800 - paper manufacturing (UNECE&FAO, 2019)

Female workers:
- 3-32 %, approx. 14% (UNECE & FAO, 2020)
- fewer in decision-making and interest groups (Böhling et al., 2021)
- 23% in higher forest education (UNECE & FAO, 2020)

Future forestry workforce needs

The future forestry workforce must adapt to emerging challenges - a transformation is driven by innovative technologies and the need for diverse skill sets!

Need for a diverse workforce equipped with new skills to manage forests sustainably and respond to environmental changes (Hanewinkel & Peyron, 2014)

- *Technological revolution (i.e. remote sensing, data analytics, and automation) of forestry practices enhances efficiency (Venanzi et al., 2023)*
- *Precision forestry techniques (i.e. LiDAR and photogrammetry) are crucial for monitoring forest operations (Venanzi et al., 2023)*
- *Soft skills (i.e. communications, strategic planning, relationships and business) reflect a greater need for collaborating with people (Mayor et.al. 2024)*

Strategies must focus on attracting a diverse workforce to foster innovation (Ludvig, Öllerer, & Aubram, 2024) **and resilience** (Corona, 2019) **in forestry practices!**

Future Forestry Workforce Prospects

Without access to education
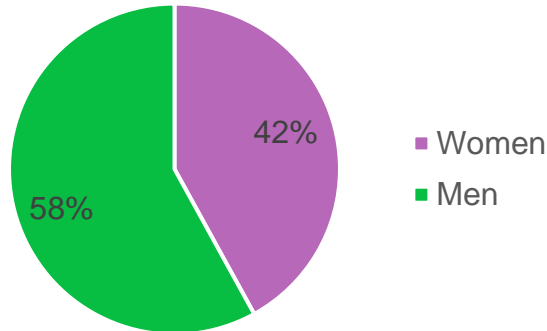
(UNESCO, 2020)

258 million children and youth
61 million adolescents of lower-secondary age
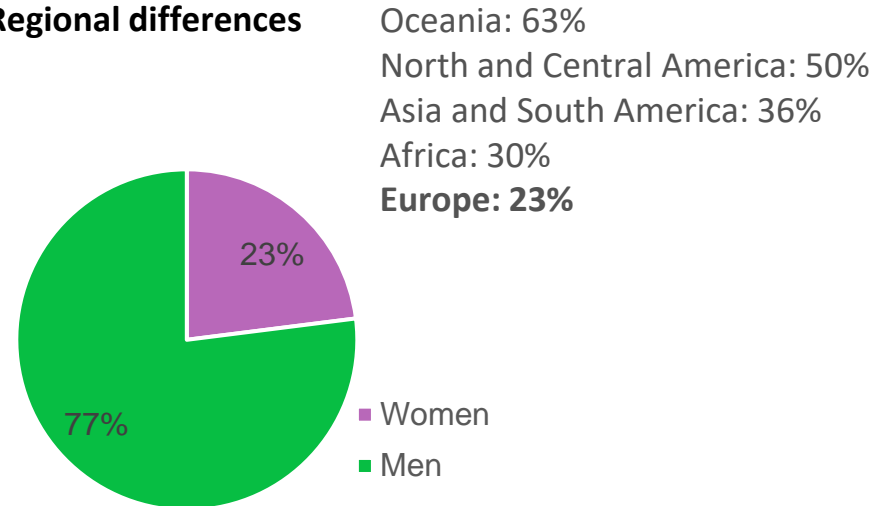138 million of upper-secondary age
2/3 of young people

Forestry graduates, Higher education

Regional differences

Oceania: 63%
North and Central America: 50%
Asia and South America: 36%
Africa: 30%
Europe: 23%

42%

58%

- Women
- Men

23%

77%

- Women
- Men

Motivations and hesitancies of forestry students

- A survey exploring what motivated students or caused hesitation when making the decision to enter the forest-related sector
- 400 respondents (undergraduate and graduate students) from 51 countries and five continents

Bal, Rouleau, Sharik & Wellstead (2020)

Motivations	Hesitancies
Females significantly more motivated than males due to:	**Females significantly more hesitant than males due to:**
Sense of Job Satisfaction	Minimum Exposure to Forest-Related Sector in High School
Enjoyment of Nature	Negative Image of Forest-Related Sector
	Their Own Gender

Var. "the **negative image**" and "their own **gender**" was statistically significant for students across Regions and Race

Gender-related discrimination in forest education

IGNORANCE, GENDER ERASURE, INSTITUTIONAL BIAS

"Gender is not talked about in forestry [...] in our university curriculum like it's not an issue, but it is a huge one."

"Male students not even realizing they're in a mostly-male environment."

GENDER STEREOTYPING, SEXISM, DISPARATE TREATMENT

"Couldn't practice chainsaw class because the (male) instructor felt that girls are slow in learning and sometimes they overreact which will put the whole class in danger."

PATRIARCHY, IMPLICIT BIAS, SYSTEMIC OPPRESSION

"Male domination - being intimated by the dominating men, even though they didn't say much."

TRIVIALISATION, DISMISSAL, MICROAGGRESSIONS

"Being treated as a joke because you want to take gender and gender-affirming language seriously."

Gender and other types of discrimination of young professionals

Kwame: A Struggle to recognizing international education and experience

An immigrant from Ghana faced barriers with non-recognition of credentials; costly, time-consuming accreditation
Struggled to secure employment even after completing a Canadian forestry program due to biases in recruitment against visible minorities
Took a lower-level job in a rural town for experience but often felt unwelcome in the community

Noami: Defying traditional height and body size

Despite excellent qualifications, faced bias in job interviews due to below-average height and body size
Struggled to find appropriately sized personal protective equipment (PPE) after securing a job
Continually underestimated by colleagues, who judge her abilities based on her appearance rather than her skills

Ama: Standing up against harassment as a woman and a mother

Faced inappropriate behaviour and public shaming from her boss, worsening during her pregnancy
Reporting the issue triggered complications with her union and lawyers, leading to a settlement and her job departure
Scared of filing a formal complaint due to stigma and observed a reluctance to hire young women, particularly those who might become mothers

FOR GEDI
Gender Equality, Diversity and Inclusion in forest-related sectors

Stories courtesy: Boakye-Danqueh, J. 2024
(based on material from ForGEDI MOOC, Week 2)

A call for action!

Sustainable Development Goals

4   Quality education
5   Gender equality
10   Reduced inequalities

IFSA Open Letter, 2021

Call for gender equality in forest education and a gender-aware learning environment

Read the whole letter here: https://ifsa.net/gender-open-letter/

WE

The (former) IUFRO Task Force on Gender Equity in Forestry with contributions from …

42 contributors
30 organisations
5 geo-regions

FOR GEDI

Gender Equality, Diversity and Inclusion in forest-related sectors

How to move forward to GEDI in forestry and forest-related sectors?

FOR GEDI

Gender Equality, Diversity and Inclusion
in forest-related sectors

Our aim

To advance gender equality, diversity, and inclusion (GEDI)
in forest-related sectors
through reducing the educational gap
and making the latest GEDI research
and best practices
easily available to everyone!

What tool? ForGEDI MOOC!

ForGEDI MOOC @ futurelearn.com
Launched 8th April 2024
Open Access with Free Certificate

In association with

Provided by   Co-funded by   Co-funded by

A nuanced understanding of GEDI in the context of forestry

FOR GEDI
Gender Equality, Diversity and Inclusion
in forest-related sectors

For whom ?

Students

Forestry
Agriculture & food
Business & trade
Bio-economy
Local/rural development
International relations

Educators

Universities
Schools & technical colleges

Professionals

Businesses
Civil society organizations
Governments and public agencies

FOR
G=DI
Gender Equality, Diversity and Inclusion
in forest-related sectors

Stats! We love it!

Accurate up to midnight on 23 September 2024 UTC.

Joiners	1,432	
Leavers	39	2.7%
Learners	1,261	88.1%
Active Learners	529	42.0%
Returning Learners	271	21.5%
Social Learners	177	14.0%
Learners with ≥50% step completion	242	19.2%
Learners with ≥90% step completion	220	17.4%
Run Retention Index	0.483	48.3%
Fully Participating Learners	210	16.7%
Statements Sold	0	
Certificates Sold	0	

How Does ForGEDI MOOC Make the Difference?

How did the course meet your expectations?

- better 68%
- met 29%
- not sure 2%
- worse 1%
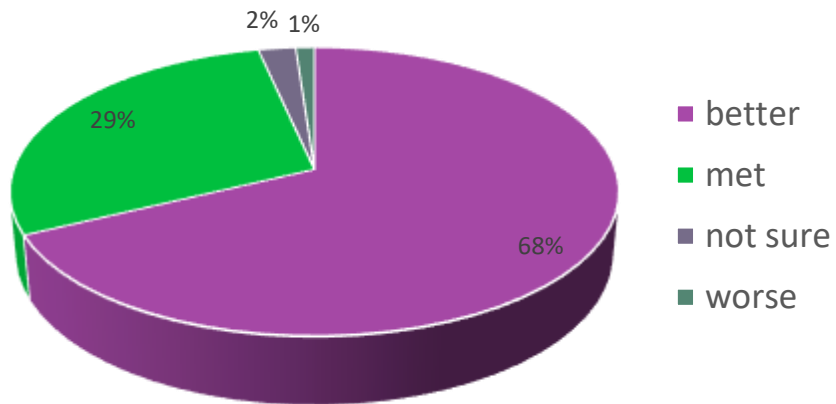
Did you obtain new knowledge and skills?

- yes 97%
- no 0%
- not sure 3%
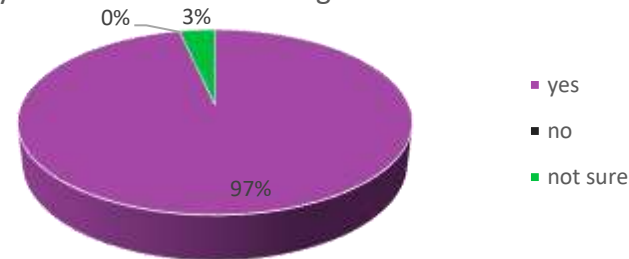
Did you apply what you learn in the course?

- yes 84%
- no 8%
- not sure 8%
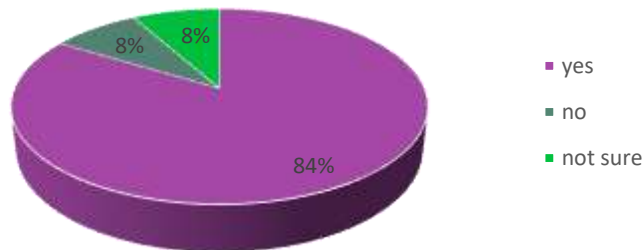
Did you share what you learn in the course?

- yes 85%
- no 15%
- not sure 0%

Source: FutureLearn Completion data set based on 87 responses, elaboration Sept. 2024
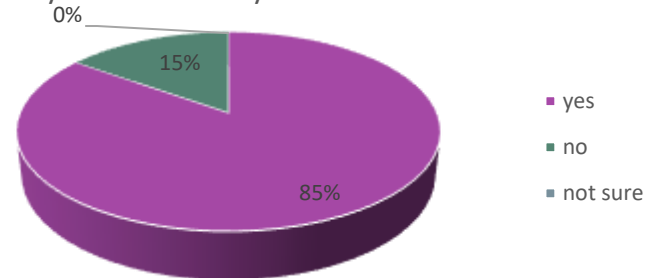
Conclusions

ANYBODY CAN BE DISCRIMINATED AGAINST & EVERYBODY MATTERS!

FOR G=DI
Gender Equality, Diversity and Inclusion
in forest-related sectors

Current situation

Male dominance, informality of work and decreasing workforce
Ignorance, gender erasure, implicit and institutional biases
Stereotyping, sexism, trivialisation, dismissal, disparate treatment
Patriarchy, microaggressions, systemic oppression

Future needs

Skilful workforce in new technologies and soft skills
Diversified in terms of gender, age and ethnicity
Decent jobs & nurturing working culture

Actions needed

Mainstreaming GEDI in education, science, policy, and practice
Safe spaces for exchange and organised action
Well-designed policies and tailored financial instruments
Protective mechanisms and punitive actions

Small Actions Lead To Huge Impacts, and the First Steps Have Been Made!
LET'S WALK THE TALK TOGETHER!

Connect with us

FutureLearn	https://www.futurelearn.com/courses/gender-equality-diversity-in-forestry-related-sectors
Webpage	https://forgedi.org/
LinkedIn	https://www.linkedin.com/company/forgedi-initiative/
Facebook	https://www.facebook.com/people/Forgedi/
Instagram	https://www.instagram.com/forgedi_initiative/
X	https://x.com/forgedi_mooc
YouTube	https:// www.youtube.com/@ForGEDI
e-mail	todora.rogelja@unipd stephenwyatt@umoncton.ca ida.wallin@slu.se contact@forgedi.org

References

- Bal, T. L., Rouleau, M. D., Sharik, T. L., & Wellstead, A. M. (2020). Enrollment decision-making by students in forestry and related natural resource degree programs globally. International Forestry Review, 22(3), 287-305.
- Boakye-Danquah, J., Reed, MG., Egunyu, F., Machado, N., Addy, SNA., & Wyatt, S. (2023). A report on the experiences of underrepresented groups in Canada's Forest Sector: focus on opportunities, barriers, challenges & recommendations for action. Free to Grow in Forestry, July 2023.
- Böhling, K., Chobanova, R., Georgieva, D., Bouriaud, L., Krajnc, N., Schreiber, R., Juschka, J., Karisch-Gierer, D., Gaube, H., Janusch, E., Zec, S., Kiš, M., Shchoka, I., Loyko, L., Trle, A., Nedeljković, J., & Palatova, P. (2021). Report "Collected needs of women and wider gender perspectives in forestry" Deliverable: D.T1.1.2 Project number: DTP3-500-1.2 Fem4Forest. https://doi.org/10.13140/RG.2.2.21884.05765
- IFSA. (2021). Gender and Forest Education: An Open Letter by IFSA. Available at https://ifsa.net/gender-open-letter/
- ILO. (2019). Decent work in forestry: Decent work in the rural economy: Policy guidance notes, 12 pp.
- Lippe, R.S., Ojeda Luna, T., Katajamäki, W., Schweinle, J. (2023). Labour informality in forestry: A longitudinal (2009–2020) cross-country analysis of determinants in 70 developing countries. For. Policy Econ. 156, 103056.
- Lippe RS, Schweinle J, Cui S, Gurbuzer Y, Katajamäki W, Villarreal-Fuentes M et al. Contribution of the forest sector to total employment in national economies: Estimating the number of people employed in the forest sector. (2022). FAO and ILO; Rome and Geneva
- Ludvig, A., Öllerer, B., & Aubram, T. (2024). Connecting gender balance, crisis resistance and innovativeness in the forestry sector: Women in leadership and management. Environmental Science & Policy, 161, 103890, https://doi.org/10.1016/j.envsci.2024.103890.
- Mack, Vivienne; Römer, Nele; Loch, Theresa Klara (2023) Workshop on Gender in Forest Education during the International Forestry Students' Symposium (IFSS) 2023
- Marc, Hanewinkel., Jean-Luc, Peyron. (2014). Tackling climate change—the contribution of scientific knowledge in forestry. Annals of Forest Science, doi: 10.1007/S13595-013-0352-2
- Mayor, Luis, Line F. Lindner, Christoph F. Knöbl, Ana Ramalho, Remigio Berruto, Francesca Sanna, Daniele Rossi, Camilla Tomao, Billy Goodburn, Concha Avila, and et al. 2022. "Skill Needs for Sustainable Agri-Food and Forestry Sectors (I): Assessment through European and National Focus Groups" Sustainability 14, no. 15: 9607. https://doi.org/10.3390/su14159607
- Piermaria, Corona. (2019). Global change and silvicultural research. Annals of Silvicultural Research, doi: 10.12899/ASR-1827
- Rachele, Venanzi., Francesco, Latterini., Vincenzo, Civitarese., Rodolfo, Picchio. (2023). Recent Applications of Smart Technologies for Monitoring the Sustainability of Forest Operations. Forests, doi: 10.3390/f14071503
- UNECE and FAO. (2020). Forest sector workforce in the UNECE region: Overview of the social and economic trends with impact on the forest sector. GENEVA TIMBER AND FOREST DISCUSSION PAPER ECE/TIM/DP/76.
- ForGEDI MOOC. (2024).Massive Open Online Course Gender Equality, Diversity & Inclusion in Forestry-related Sectors (ForGEDI). Provided by UNIPD, SLU, UdM, IUFRO, et. al. Available at https://www.futurelearn.com/admin/courses/gender-equality-diversity-in-forestry-related-sectors

FOR
G=DI

Gender Equality, Diversity and Inclusion
in forest-related sectors