Gender in Agrifood Systems Teaching

Date

Facilitator's name and email address

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Glossary

Gender Balance: An equitable distribution of genders within a group, organization, or team, often with the goal of fostering diverse perspectives and reducing bias.

Gender Barriers: Obstacles that limit opportunities, resources, or fair treatment based on gender, often rooted in societal norms or institutional practices.

Gender-Based Violence: Any act of violence directed at an individual based on their gender, often intended to establish or reinforce gender-based power inequalities.

Gender Dimension: The integration of gender considerations into the design, implementation, and evaluation of policies, projects, or research to ensure that they benefit all genders fairly.

Gender Equality: The state of equal access to opportunities and resources, regardless of gender, aiming to eliminate gender-based discrimination and ensure fair treatment for all.

Gender Equality Plan: A formal policy or document developed by an organization to promote equal opportunities and eliminate gender bias within the workplace or project environment.

Gender Impact: The specific effects or outcomes that an action, policy, or program has on gender equality or the experiences of different genders.

Gender Inequalities: Disparities in status, resources, opportunities, and treatment based on gender, often resulting from systemic biases or discrimination.

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Glossary

Gender Mainstreaming: A strategy in which gender perspectives are integrated into all stages of project planning, implementation, and evaluation, promoting equal opportunities and preventing gender-based discrimination.

Gender Quotas: A system of setting minimum requirements for gender representation in certain areas, such as employment or decision-making bodies, to promote gender equality.

Gendered Metaphors: Figurative language that reinforces gender stereotypes or assigns gendered characteristics to certain roles, objects, or actions.

Gender-Sensitive Lens: An approach or perspective that actively considers and addresses the different needs, roles, and experiences of individuals based on their gender.

Language Bias: The use of language that reinforces stereotypes or excludes certain groups, often unintentionally; this can include gendered terms or phrasing that favor one gender over another.

Mitigating Measures: Actions taken to reduce or counteract potential negative effects, such as policies or practices aimed at lessening gender-based barriers or biases.

Sexual Harassment: Unwanted or inappropriate behavior of a sexual nature that creates an intimidating, hostile, or offensive environment for the victim.

Unconscious Gender Biases: Implicit biases specifically related to gender, which can influence perceptions, decisions, and behaviors without conscious awareness, often perpetuating stereotypes and inequalities.

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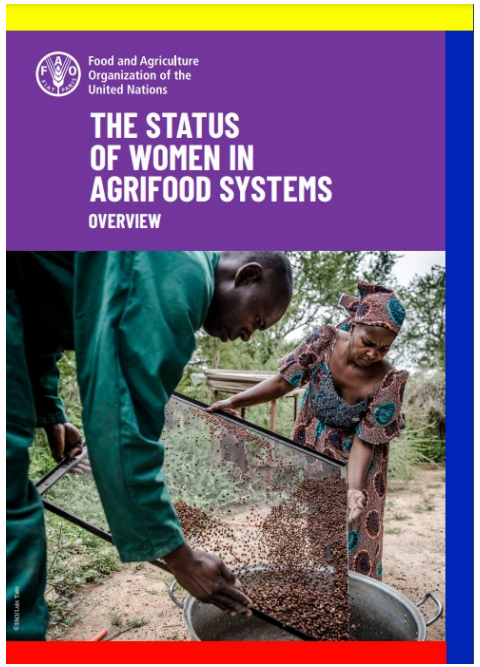
Agrifood systems world context

2023

Agrifood systems are a major employer of both women and men. Globally, **36 percent** of working women are employed in agrifood systems, along with **38 percent** of working men.

Men have greater ownership or secure tenure rights over agricultural land than do women in **40 of 46 countries** reporting on Sustainable Development Goal Indicator 5.a.1.

Women engaged in wage employment in agriculture earn **82 cents** for every dollar that men earn.



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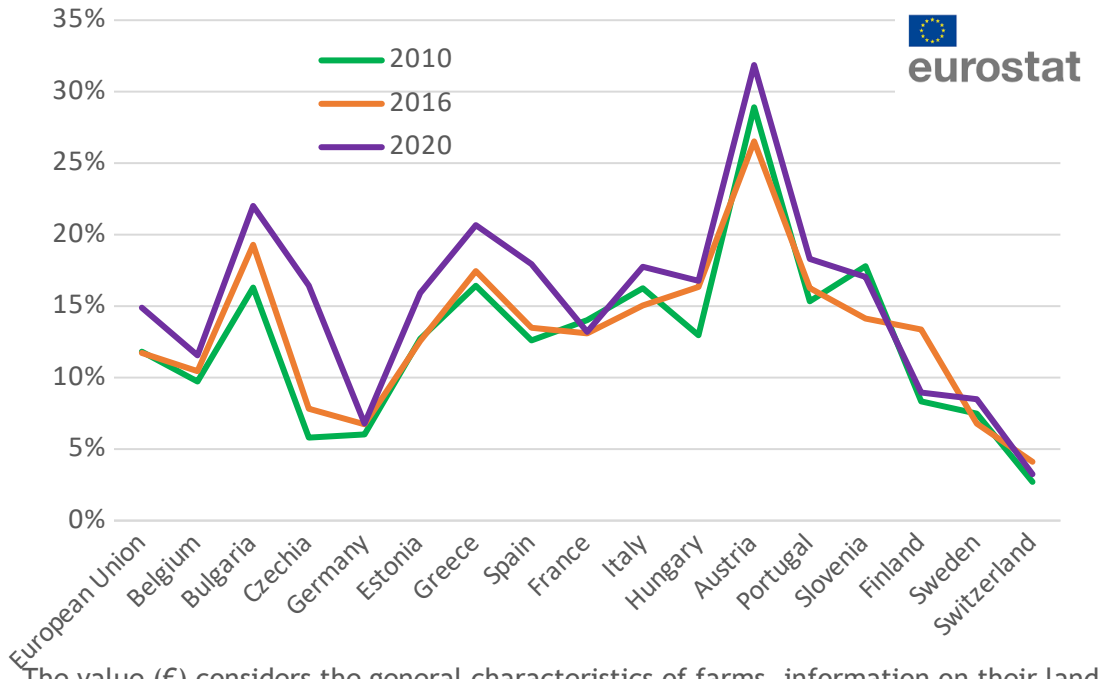
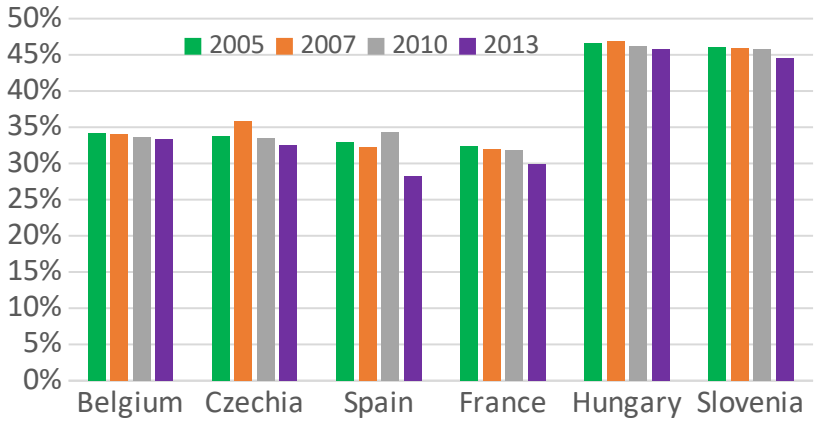
Agrifood Systems - EU context

% of economic value (€) corresponding to female farm managers



Female % of regular labor force



The value (€) considers the general characteristics of farms, information on their land, livestock and labor force, production methods, rural development measures and agro-environmental aspects that look at the impact of agriculture on the environment.

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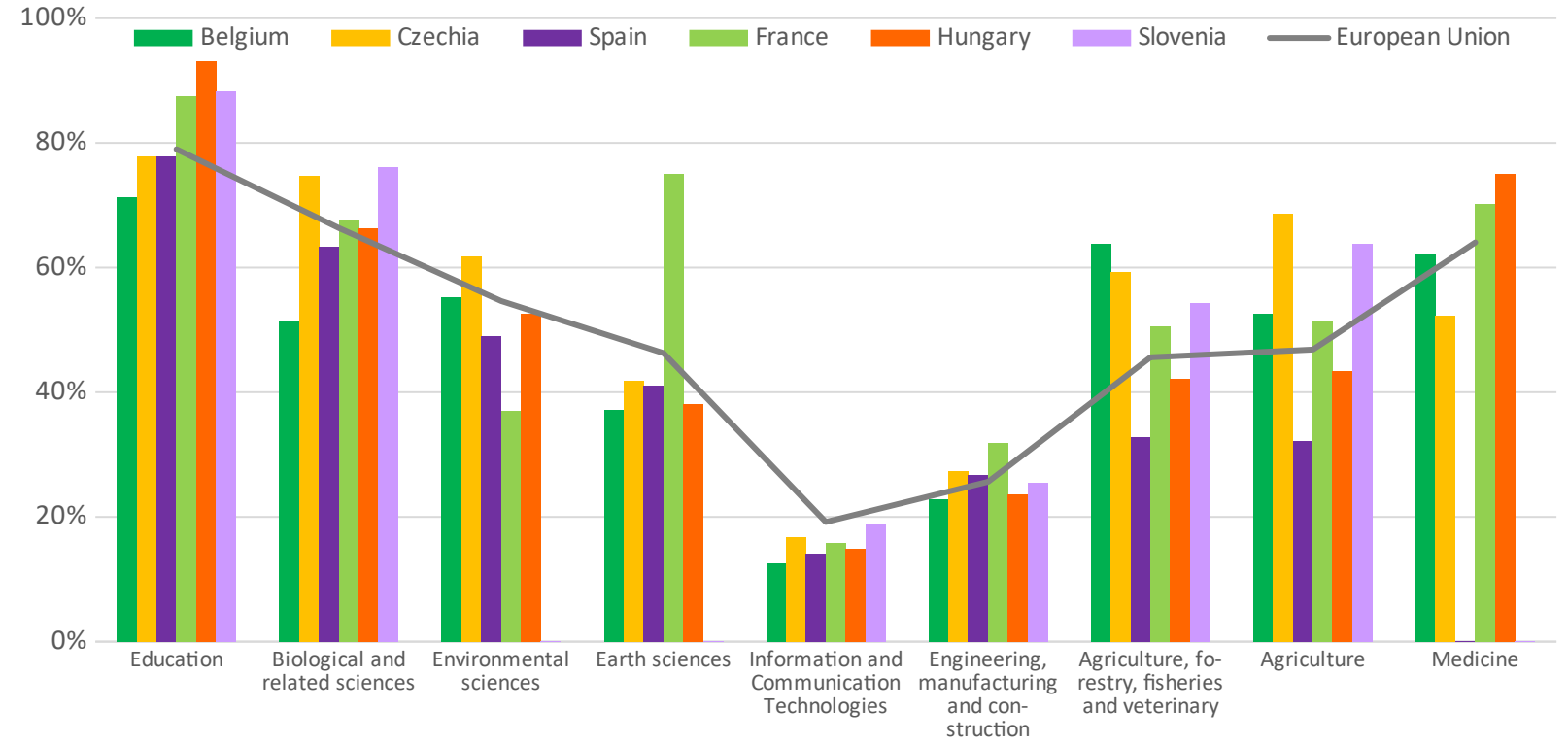
Agrifood Systems - EU context



eurostat

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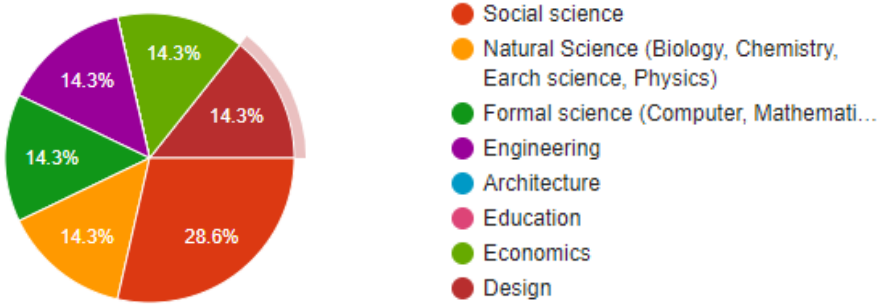
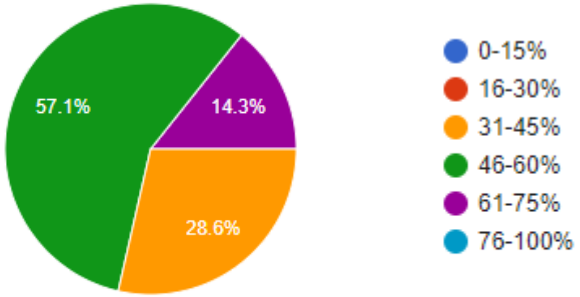
AGRIGEP context

7 answers

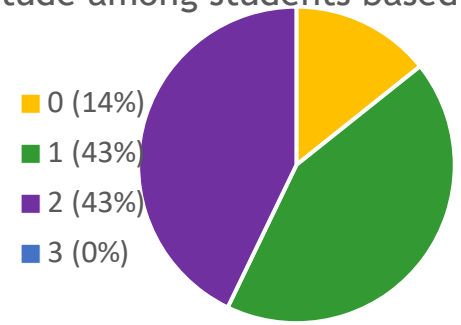
Knowledge are (teaching)



% female students



Different attitude among students based on gender



- women are more diligent
- lower self-confidence of women, distribution of tasks (women-administration, organisation)
- different attitudes to learning, different attendance and communication styles
- male students tend to participate more in class (asking questions and replying to questions)

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Gender blindness and its implications

Gender-neutral….. or gender-blind?

Masculinization of the professional and academic culture of the discipline

Impact:

- ❑ Low proportion of female students in engineering
- ❑ Perpetuation of stereotypes
- ❑ Under-representation of women in engineering decision-making bodies
- ❑ Gender-blind research for the society

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Gender mainstreaming

The governance bodies, key actors and decision-makers

Recruitment, career progression and retention

Work and personal life integration

Researchers and research: gender equality and sex and gender perspective

Integration of sex and gender dimension in teaching curricula

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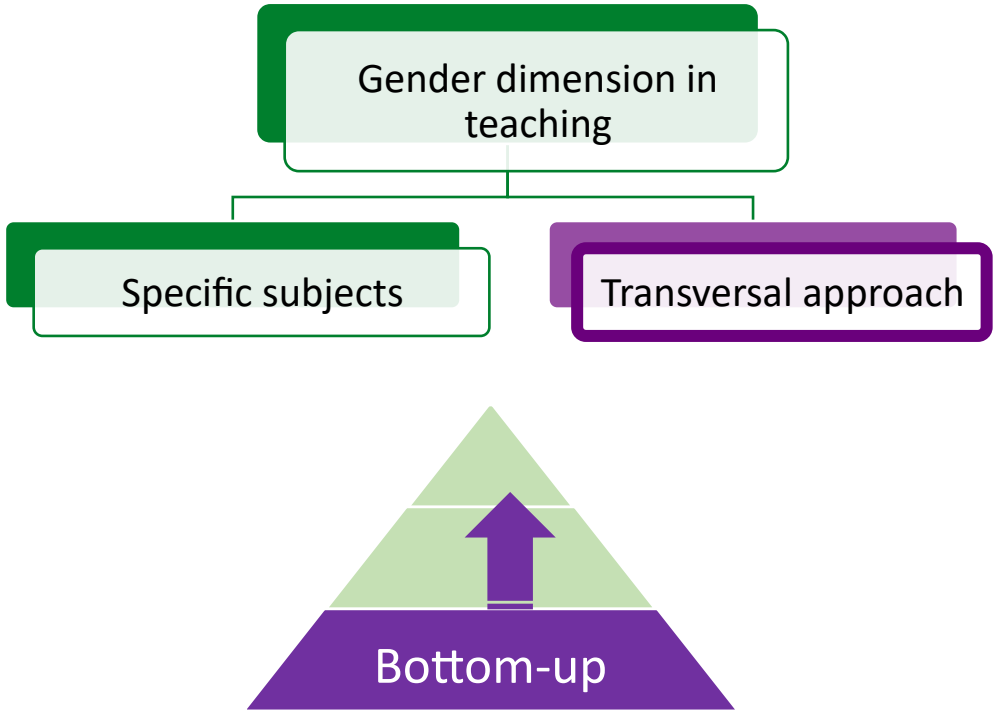
https://www.plotina.eu/drafting-the-gep/

Basic principles



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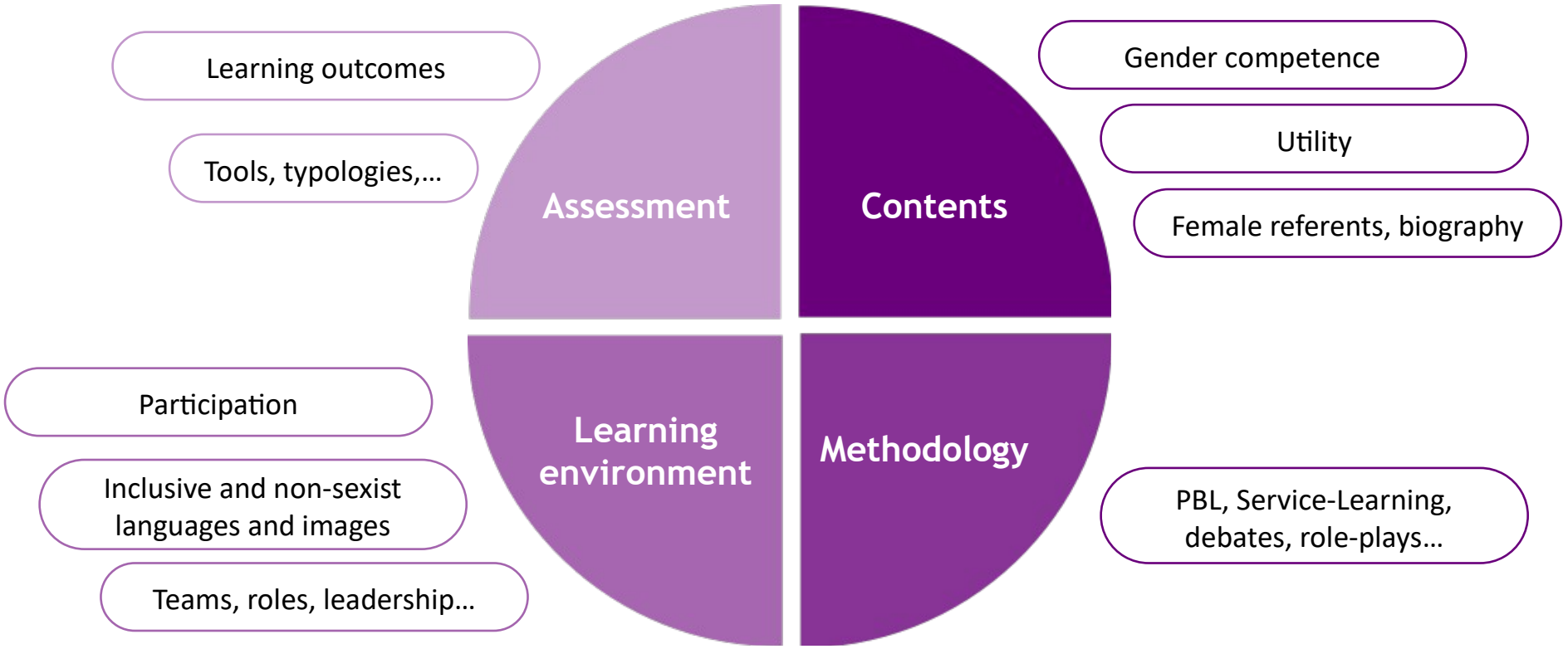

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Methodology

- Active methodologies (as promoters for human dimension)
- Self-efficiency → referent female engineers
- Ex ante & ex post → action research

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Learning environment

- Female students participation
- Gender-sensitive language

  Universitat Politècnica de Catalunya: Third person pronouns

  (he/she, him/her → plural they, their, …)
- Egalitarian visual resources
- Teamwork gender distribution and roles

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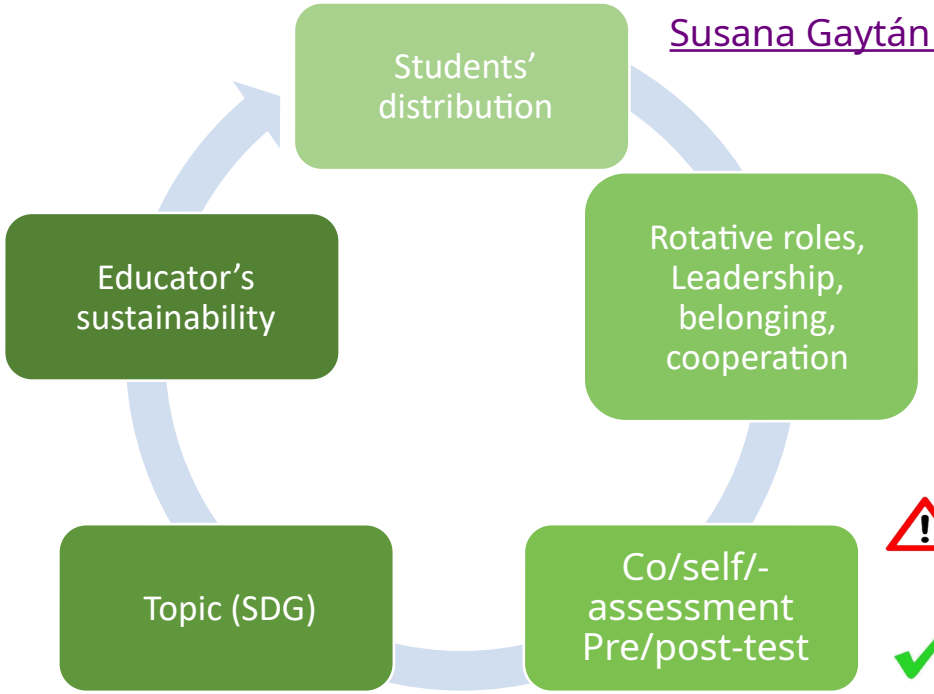
Learning environment

Project Based Learning (PBL) & teamwork



Susana Gaytán (2016)

Laura Hirshfield & Milo D. Koretsky (2018)

Sarah Hofer (2015)

Carina S. González-González et. al. (2018)

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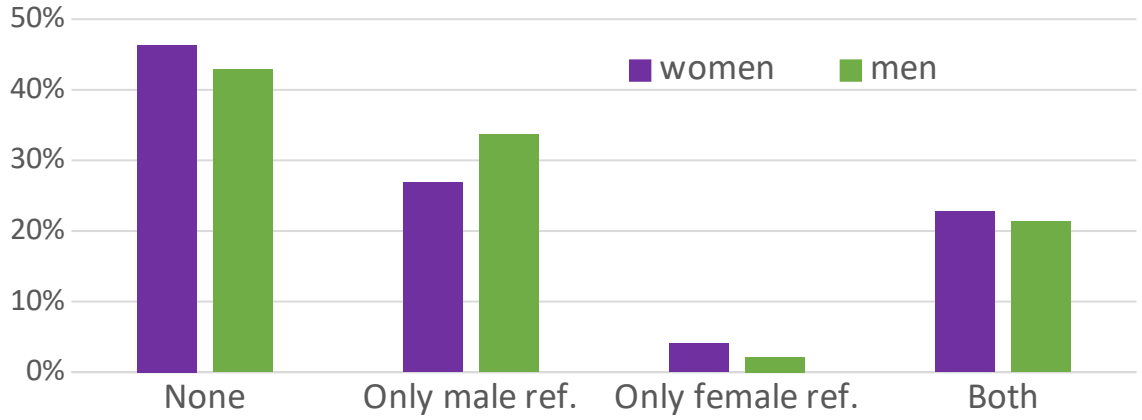
Contents

Survey 2019

548 students

16 courses

7 Bachelor and Master degrees



→ male/female referents

	Male students	Female students
Male referents	Actual and from the field of study	Belonging from the personal circle
Female referents	Belonging from the personal circle or UPC teaching staff	

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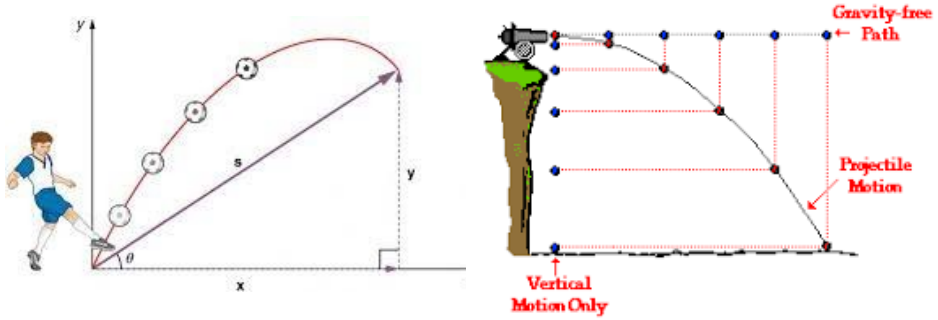
Contents

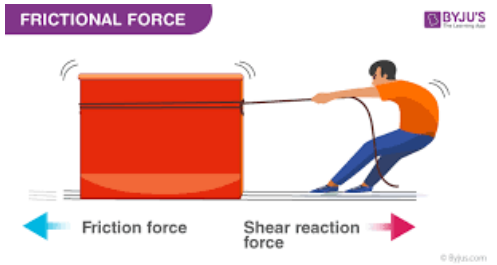
Fundamentals

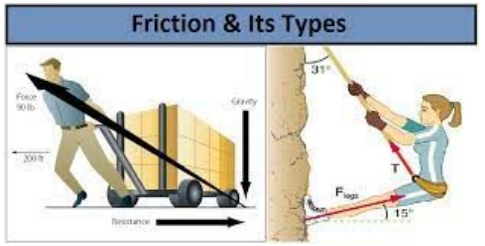
- Examples: calculus, algebra, physics, statistics…
- Focus: contextualization

Google “Parabolic movement”:



Google “Friction force”:





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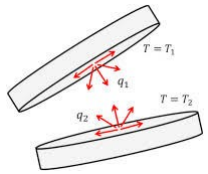
Technologies

- Examples: heat transfer, electrotechnics, …
- Focus: + safety, environment, ergonomic, SDG, consumption paths, …



Service-learning: Building improvement: energy, accessibility, acoustics, ventilation, ...

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Contents

Management

- Examples: projects, organization, human resources, …
- Focus: + + gender in interpersonal relationships, recruitment, work-life balance, …

Discussions regarding gen*der ga*ps and biases in the selection processes and promotion

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Assessment

Is it relevant? Then, it must be assessed

- Tools:
  - → Open question or multiple-choice test?
  - → Contextualised questions
- Types:
  - → formative, feedback
  - → Pros & cons of co/self-assessment
- Student involvement: *when, how, why*
- Unconscious bias by the educator!

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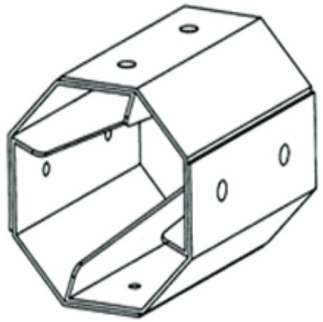
Subject: machinery & mechanization

Journal of AgriSearch, 8 (1): 30-34
An Open Access International Peer Reviewed Quarterly

ISSN : 2348-8808 (Print), 2348-8867 (Online)
https://doi.org/10.21921/jas.v8i01.19560

Ergonomic Evaluation of Hand Operated Maize Sheller for Reducing Drudgery of Farm Women in Bihar

BIKASH SARKAR, PREM K SUNDARAM*, AP ANURAG, RAKESH KUMAR,UJJWAL KUMAR, A RAHMAN AND AUPADHYAYA



Enginyeries Agraries: guies per a una docència universitària amb perspectiva de gènere. Raigón Jiménez, María Dolores (Xarxa Vives d'Universitats, 2022)

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Concept: Appropriate technology

- ✓ *Suitable for the specific social, economic and environmental conditions of a particular community or context.*
- ✓ *Sustainable solutions (often simple, affordable, and adaptable)*
- ✓ *Prioritise accessibility, local participation and empowerment.*

improve living standards ⟷ ***minimizing negative impacts on the environment***

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Case study: cooking in a Sub-Saharan Africa

Impacts:

- *Deforestation - loss of biodiversity, soil erosion, and reduction of CO2 sequestration - climate change!*
- *Indoor air pollution - respiratory diseases – women and children!*
- *time and labor intensive: loss of opportunity!*

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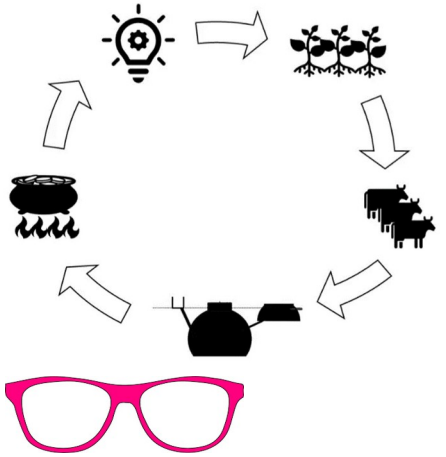
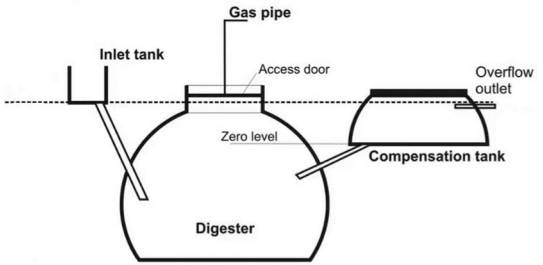
Case study: cooking in a Sub-Saharan Africa

Appropriate technology: Biogas technology

- ✓ *From organic waste to usable energy*
- ✓ *Reforestation*
- ✓ *New time distribution*
- X ***Risk:*** *gendered norms (decision, benefits)*
- ✓ ***Vertical and horizontal coalitions:*** *women in management operation and decision-making processes*
- ✓ ***Shift power dynamics*** *within households and communities*





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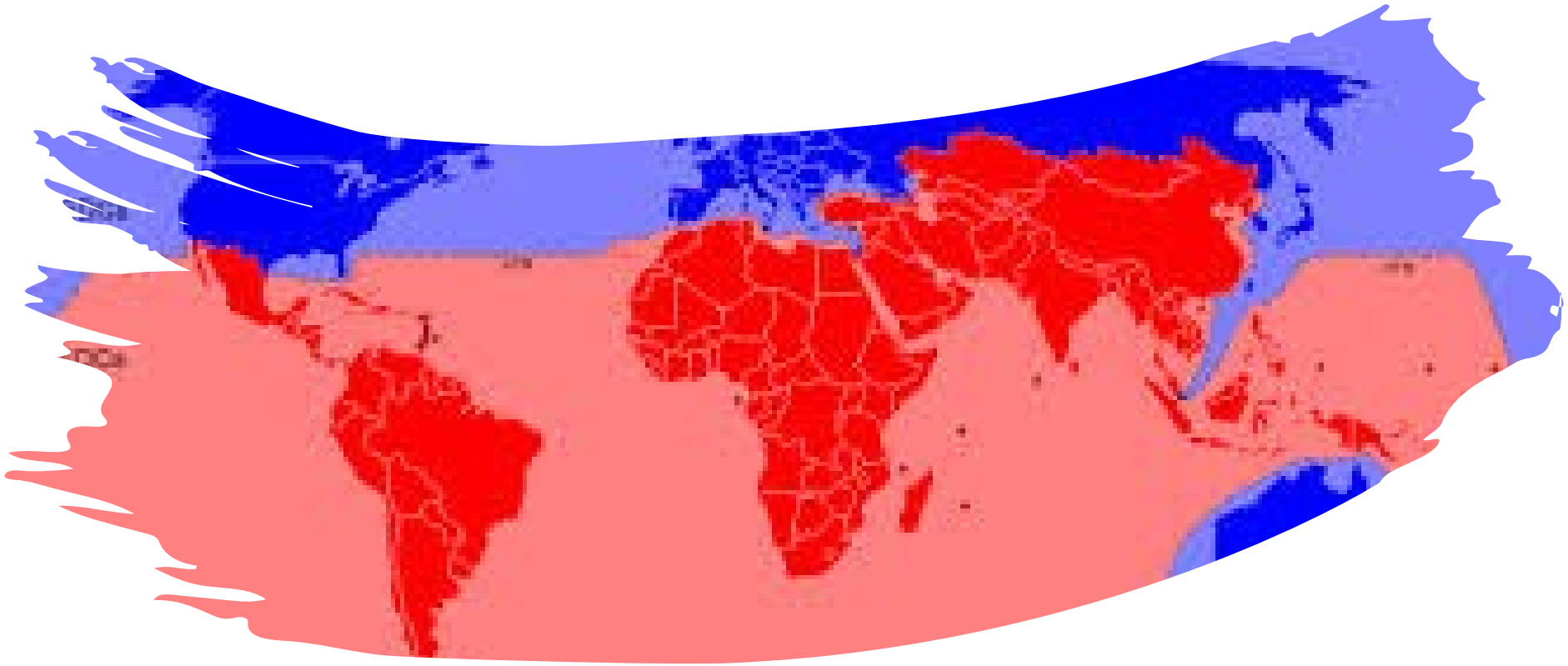
Different contexts



Global North and Global South

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Subject: machinery & mechanization

Ergonomics and the Development of Agricultural Vehicles

W. Kyle Dooley

For presentation at the 2012 Agricultural Equipment Technology Conference
Louisville, Kentucky, USA 13-15 February 2012

Ergonomics for Gender Friendly Farm Equipment to Enhance Better Human-machine Interaction

Shiv Pratap Singh, M. K. Singh, Mukesh K. Singh and U. Ekka

Division of Agricultural Engineering, ICAR-IARI, New Delhi-110012, India

RASSA Journal of Science for Society 1(1&2): 54-59, April & September 2019

The best possible ergonomic match maximizes an operator's effectiveness, comfort and system safety. For every ergonomic mismatch, you are deducting from your ideal productivity, costing time and money.

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Subject: irrigation engineering

www.water-alternatives.org
Volume 1 | Issue 1
Zwarteveen, M. 2008. Men, masculinities and water powers in irrigation. Water Alternatives 1(1): 111-130

WaA

Men, Masculinities and Water Powers in Irrigation

Margreet Zwarteveen
Irrigation and Water Engineering Group, Wageningen University, the Netherlands; margreet.zwarteveen@wur.nl

6 CLEAN WATER AND SANITATION

Enginyeries Agraries: guies per a una docència universitària amb perspectiva de gènere. Raigón Jiménez, María Dolores (Xarxa Vives d'Universitats, 2022)

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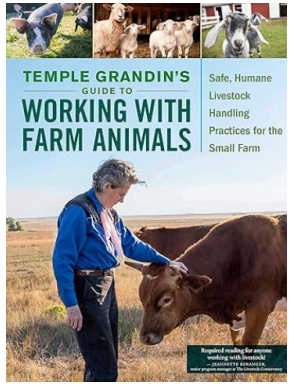
Female role-models

Mary Temple Grandin (1947)

Her innovative designs for livestock handling facilities have revolutionized the way animals are handled and processed in the agricultural sector.



Louise Fresco (1952)

Her work focuses on the intersection of science, technology, and society, particularly in the context of food production.

Mary-Dell Chilton (1939)

Her work on plant genetic engineering has been instrumental in the development of genetically modified crops, significantly impacting the agro-food industry.

FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

August 17, 2022

4 Women Scientists Breaking Down Barriers to End Hunger

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Female role-models

2023 (3)

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Recommended readings

- Top 10 reads on women's work in agri-food systems, Nyasha Singaraju, CGIAR GENDER Impact Platform, 28th June 2023
- Enginyeries Agraries: guies per a una docència universitària amb perspectiva de gènere. Raigón Jiménez, María Dolores. Xarxa Vives d'Universitats, 2022
- Agricultural Studies. Syllabus by Prof. Dr. Christine Bauhardt, M.A. Meike Brückner, July 2018
- Toolkit for Integrating Gender-Sensitive Approach into Research and Teaching, Jovana Mihajlovic Trbovc and Ana Hofman, Garcia Working Papers n. 6, 2015
- Gender equality in academia and research. GEAR tool, European Institute for Gender Equality, 2016
- A guide for Gender Equality in Teaching Education Policy and Practices, United Nations Educational, Scientific and Cultural Organization, 2015
- Guide of Industrial Engineering to mainstreaming gender in university teaching, Elisabet Mas de les Valls and Marta Peña, Xarxa Vives d'universitats, 2020

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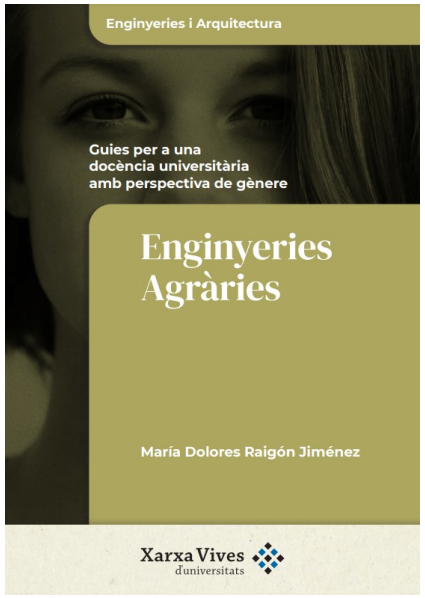
Guides of the Vives University Network (Spain)

- First guides published in 2018. At present: 29 guides (11 in STEM fields)
- Recognized by the European Institute for Gender Equality (EIGE) as an example of good practice in its GEAR Toolkit



Xarxa Vives d'universitats

Agricultural engineering (2022)

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Final remarks

- The **agrifood** context is still male dominated → actions are required.
- Gender dimension can be included in **all subjects** (4 pillars).
- **Guides and tools** are widely available.
- Resistances will appear → introduce the changes gradually, in a **natural way** and **participate in hands-on trainings** to get more insight.

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Gender in Agrifood Systems Teaching

Date

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