

## Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)'s Gender Awards 2024

### 1. Technical data:

**Country:** Brazil

#### **Composite team:**

Julia Giebler Santos (Director of the project “Professionals of the Future Project: Competences for Green Economy”)

Bruna de Paula Miranda Pereira (Technical Advisor of the project “Professionals of the Future Project: Competences for Green Economy”)

Roberta Hessmann Knopki (Technical Advisor of the project “Professionals of the Future Project: Competences for Green Economy”)

Gustavo Ribeiro (Implementation Manager of the project “Financing Energy for Low-Carbon Investment – Cities Advisory Facility - FELICITY”)

Maria Rosa Tesser Rodrigues de Lima (Technical Advisor of the project “Financing Energy for Low-Carbon Investment – Cities Advisory Facility - FELICITY”)

### 2. Submitted items:

Energy & Gender Equity digital Booklet

### 3. Assessment Criteria - ENERGY & GENDER EQUITY DIGITAL BOOKLET:

#### **Criteria 1: Promoting gender equality (40% of marks)**

- a) **Objective:** The digital booklet aims to promote gender equality in STEM fields (Science, Technology, Engineering, and Mathematics), with a specific focus on renewable energy. Its goal is to ignite the interest of girls and young women at various stages of vocational education and training, including elementary school up to undergraduate courses. To facilitate this objective, a digital interactive booklet has been created to support teachers in integrating gender equality into their curricula. The booklet organizes and provides access to a variety of educational resources, including videos, podcasts, games, and other materials.
- b) **Context:** The International Renewable Energy Agency (IRENA) carried out an extensive study that pointed out this reality in numbers, as shown in the graphs below.

**WOMEN AND THE WORKFORCE IN THE WORLD** - Despite accounting for 48% of the world's workforce, women make up 22% of the workforce in the global energy sector, occupying 19% of C-suite positions and only 6% of leadership positions. Source: IRENA, 2019.

**WOMEN IN THE RENEWABLE ENERGY SECTOR** - Women make up 32% of employed people in the sector. Of these, 43% are in general managerial jobs and 31% in jobs that require training in science, technology, engineering, and mathematics. Source: IRENA, 2019.

**WOMEN IN HIGHER EDUCATION.** In 2018, despite occupying 56% of higher education vacancies, women represented 30% of students in the areas of Science, Technology, Engineering and Mathematics (STEM), and of the 20 courses linked to the category, only three are in the gender parity range (45-55%), with Information Technology and Engineering being the most unequal courses in terms of representation. Source: STEM Equality, 2022.

- c) **People involved:** Educators, teachers, organizations such as the Ministry of Education (MEC), Ministry of Labor and Employment (MTE), National Service of Industrial Training (SENAI), Ministry of Mines and Energy (MME), universities, federal institutes (IFB), business associations, companies.

- d) **Effective approaches:** The booklet compiles diverse educational material like, lesson plans, videos, seminars, podcasts, reports, games, networks, and initiatives, specifically designed to increase the knowledge and consciousness about gender inequalities and to promote gender equity in STEM. Additionally, promoting hands-on activities and engaging teaching methods are emphasized to implement gender-equitable education effectively. The booklet is designed in an attractive way for teachers and educators, several relevant contents are gathered here, based on a big mapping study that added many teaching materials from relevant institutions and initiatives focused on gender equity. The materials are divided between Elementary Schools I and II, High Schools and Technical and Higher Education, and are described and clickable which makes the booklet interactive.
- e) **Results achieved:** Considering the booklet was launched in March 2023 and we need years to analyze the results of an educational process, it isn't possible at this stage to show concrete numbers. But the intention is to increase of awareness among students, provide resources for teachers, and foster a more inclusive learning environment. The results will be measured through improved participation and engagement of girls and women in STEM-related fields and increased awareness among educators and students about gender equity in energy and STEM careers. The long-term impact will might be seen in higher enrollment and participation rates of women in renewable energy and STEM fields.

### **Criteria 2: Gender as a quality feature of our work (20% of marks)**

- a) **Acknowledgement by clients, partners, and commissioning parties:** The booklet garners acknowledgment from diverse stakeholders, including educational institutions, governmental bodies, NGOs, and international organizations. Clients and partners endorse the handbook's approach to integrating gender equality into STEM education, recognizing its significance in fostering inclusive learning environments. Commissioning parties, such as funding bodies or governmental agencies, acknowledge the handbook's alignment with their gender-focused initiatives and educational goals.
- b) **How is that reflected or shown:** Endorsements and testimonials validating its effectiveness in promoting gender equality in STEM education and highlighting the handbook's impact on reshaping mindsets, improving educational practices, and fostering diversity in STEM disciplines.

<https://www.gov.br/mme/pt-br/assuntos/noticias/mulheres-na-lideranca-mme-promove-seminario-sobre-diversidade-equidade-e-inclusao-de-genero-nos-setores-de-energia-e-mineracao>

<https://www.portaldaindustria.com.br/publicacoes/2023/3/cartilha-de-energia-e-genero-para-educadores/>

<https://www.frm.org.br/conteudo/educacao-basica/material-pedagogico/cartilha-energia-e-equidade-de-genero>

[Cartilha do MEC e GIZ propõe meta para participação de mulheres em capacitação para renováveis – pv magazine Brasil \(pv-magazine-brasil.com\)](#)

### **Criteria 3: Implementing feminist core principles (20% of marks)**

- a) **Human rights-based approaches:** The booklet extensively integrates human rights-based approaches, emphasizing equality and non-discrimination principles. It aligns with international human rights frameworks and instruments, ensuring that all educational materials and strategies advocate for equal rights and opportunities for individuals irrespective of gender.
- b) **Targeted dismantling of structural causes for inequality, disadvantages, and exclusions (gender-transformative approaches):** Furthermore, the initiative can foster the inclusion of young women in the growing green job market in Brazil. Equity in access to education is an essential step to reduce gender inequalities, it is also crucial that the processes and content of education are addressed in a conscious manner. Acting in education in an active way to promote gender equality is an essential part of the formation of girls and

boys. Education is a human right for all. Improving knowledge, skills and teaching materials for teachers and others responsible for the education and training of people (children, young people, and adults) is essential to change structures of inequality, disadvantage, and exclusion. If we were able to contribute with the booklet to a less discriminatory and exclusive education, we would make a structural change, yes.

- c) Intersectional and gender-inclusive, post-colonial and power-critical approaches:** Technical education and vocational schools have a great potential in promoting gender equity to ensure essential dimensions of the transformation we seek. The training of women and men who are aware and capable of occupying positions in the labour market, especially in the areas of renewable energies, science, and technology, with openness to diversity and innovation, must be carried out in equity. At this stage of education, it is essential to promote specialization and research by female scientists, including for the development of technology for energy sustainability. To overcome inequalities, it is necessary for technical schools and universities to promote structural changes in their operating frameworks and in scientific practice, with programs that involve the entire academic community. The booklet provides guidelines and tips for educators: (a) during classes, pay attention to the equitable and respectful treatment between men and women, ensuring that all voices are heard and boosting women's confidence; (b) present data on gender inequality in Brazil and worldwide, especially in STEM areas, in order to encourage women to remain in courses and careers, given the strong current interest of the industry in the search for innovation and equity in its teams in line with ESG certifications; (c) present the context of inequality in science and the importance of overcoming it to promote sustainability and fair development; (d) provide the debate on gender intersectionality, bringing data on the reality of Brazilian racial inequality.

#### **Criteria 4: Cooperation (20% of marks)**

- a) Cooperation with colleagues, partners, donors, civil society representatives:**

This initiative started during FELICITY project (Financing Energy for Low-Carbon Investment – Cities Advisory Facility) implemented in Brazil between 2017 and 2022 by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the European Investment Bank (EIB), in partnership with the Ministry of Mines and Energy. FELICITY supported the development of the Luz do Saber Project, in partnership with the City of Porto Alegre. The project regarded the installation of photovoltaic panels and energy efficiency measures in the city's municipal schools. During the structuring of the project, FELICITY carried out a specific analysis on gender impacts and developed a first booklet with didactic materials on sustainability, energy, and gender, providing an opportunity for teaching about renewable energies in elementary schools. To access it, click [here](#). As the Ministry of Energy showed interest in upscaling the booklet for the national level through Procel - the National Electric Energy Conservation Program, developing a national approach in their educational platform [Energia que transforma](#). Felicity was finishing its activities, and for this reason asked Professionals of the Future Project to work in this initiative considering the common goals in this field of both projects. The Ministry of Education is the partner of Professionals of the Future Project, and then, the development of the national approach was made in partnership with them in coordination with the Ministry of Mines and Energy.

- b) Reasons for unit efforts to enhance gender equality (shared or same goals, strategies, international or other obligations and requirements, etc.):** Build an environment of respect and appreciation of gender equity in schools. Encourage girls and young women to pursue careers that escape gender stereotypes. Gender inequality affects not only girls' and boys' conceptions of identity and performance, but also limits perceptions of what they can and cannot do, according to ideals of femininity and masculinity. Thus, many girls and women are distanced from their desires and potentialities. The school environment, e.g., during high school, has great potential for impact: at this stage, the social dynamics of inequality can be perpetuated, or transformations for gender equality can be promoted. Also, at this stage of education, students will make the decision of which career to pursue. Schools can actively boost girls' confidence and skills to pursue STEM and renewable energy fields.
- c) Major challenges encountered individually or together:** Challenges include entrenched societal biases, lack of resources or funding, institutional resistance to change, and addressing the systemic barriers that deter girls' participation in the energy sector. Additionally, overcoming traditional gender stereotypes, ensuring sustained

commitment from all stakeholders, and bridging the gap between policy frameworks and on-ground implementation pose significant challenges.

- d) Three key success factors:** Strong partnerships among educators, policymakers, NGOs, and funding agencies, comprehensive approach embracing a holistic strategy that spans curriculum development, (i) teacher training, (ii) policy advocacy, and (iii) community engagement in energy sector.

<https://www.gov.br/mme/pt-br/assuntos/secretarias/sntep/felicity/caixa-de-ferramentas/cartilha-genero-e-energia/CARTILHAENERGIAEQUIDADEDEGENERO.pdf>